The Iron A

A Review of the Hardware, Iron and Metal Trades.

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Transfer Lathe.

It is frequently necessary in the arts-for It is trequently necessary in the arts—for instance, in making the copper, iron or steel rolls for calico printing, or the embossing rolls for leather, cloth, sheet zinc, brass or other sheet metals—to transfer any design other sheet metals—to transfer any design from small pattern rolls to the large ones upon which the design is to be engraved. To do this work rapidly, cheaply and with accuracy, transfer lathes are used such as that we show in the accompanying illustration, which is a machine built by Messrs. A. J. Davis & Co. of 69 New Jersey Railroad avenue, Newark, N. J.

The lathe is generally driven by power, but it can be run also by hand by means of a crank or lever. It has a counter-shaft overhead and is reversible. Conical centers are placed on the center-shaft to hold the roll on which the transfer is to be made.

are placed on the center-shaft to hold the roll on which the transfer is to be made. These centers are movable to suit rolls of different lengths, which are placed on and are taken off by raising one end of the shaft. Attached to the end of this shaft there is an index wheel, which is used to lay out the work accurately, and with the aid of a full set of cut gearing, which is furnished with the lathe, the operator is enabled to move the rest at any given pitch. The steel roll on which the design is engraved is placed in steel journals ground perfectly true and fitted in the head of the rest. It is then brought to bear upon the perfectly true and fitted in the head of the rest. It is then brought to bear upon the copper, iron or steel roll which has been placed upon the center-shaft, the lathe is put in motion and the design required on the roll is thus transferred from one to the other. The pressure required to make the indentation on the roll is regulated by a weight placed in the hook on the bar attached to the rest. as seen in our illustratached to the rest, as seen in our illustra-tion. The lathe is furnished with composi tion boxes, and the small parts, together with the shafts, are made of steel. As the workmanship must be very accurate, all the parts are made to a gauge, so that there may be no lost motion or jar, the slightest defect being sufficient to destroy the impression made while transferring the design from the small steel roll to the roll which is used to do the printing or embossing. used to do the printing or embossing.

The Sweetland-Horton Chuck.

With a view to giving the Horton chuck an independent as well as a universal action, the E. Horton & Son Company, of Windsor Locks, Conn., have modified it so as to in-clude Sweetland's improvements, the con-struction of which will be understood by clude Sweetland's improvements, the construction of which will be understood by referring to the accompanying illustrations. Figs. I and 2 give a front and back view of the chuck, which it will be seen is composed of a front and back plate, firmly bolted together. The jaws, which are an improved construction, as shown in Fig. 3, are moved to and from the center by the following mechanism: A circular rack, Figs. 4 and 5, which revolves in a deep recess, B, of the back plate, Fig. 6, has a continuous bevel cut into it on its back, while gearing is cut into the other side. The recess in which it revolves is made deep enough to allow the rack to disengage from the pinion gears on screws; in this recess, and back of the circular rack, lie the cam blocks C, beveled A, to correspond with the bevel in the rack. These bevel cam blocks have radial motion in the recess of the back plate, and when in position, being moved to the outer portion of the recess and rack, they engage the circular rack into gear with the screw pinions, and when they are moved inward allow the rack to disengage from the pinions. The former adjustment gives the universal action, and the latter the indepinions. The former adjustment gives the universal action, and the latter the inde-pendent. The back plate is also provided with radial mortises or slots, and the cam blocks C C, Figs. 7 and 8, are furnished on the back with posts which run through and have play in these mortises. The ends of these posts are threaded, and take upon them nuts, underlaid with the convex spring washers F F, which prevent the cam blocks from accidentally moving; also, form a covering for the slots, and prevent dirt or chips entering the gearing. The operator ts. The jaws of the chuck, which are bund true after being case-hardened, may removed without taking the chuck out of the lathe. The line D, Figs. 1 and 3, serves to indicate the true position of the jaws when the chuck is to be used as a universal ie. Its design is simple and compact, and construction such as to ensure ease of operation and durability.

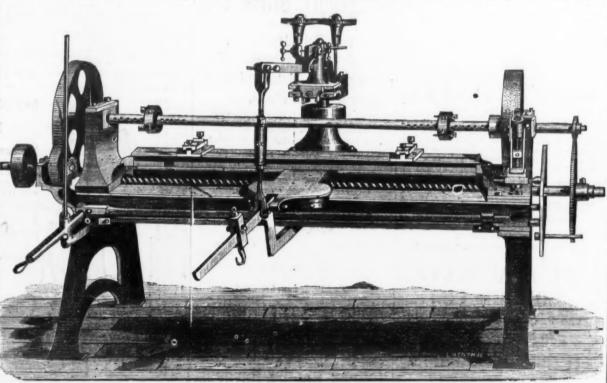
The opening of the National Fair at Nashington on the 28th ult. was marked by Partial suspension of public and private a partial suspension of public and private business, and about 15,000 people flocked to the fair grounds. An industrial procession four miles in length was formed, and, proceeding through the principal streets, reached the grounds about noon. The Presidential party, including Secretaries Evarts and Schurz, Postmaster-General Key, Attorney-General Devens, and Gen. Sherman, with ladies, arrived at the grounds about 1 o'clock, where they were received by the dential party, including Secretaries Evarts and Schurz, Postmaster-General Key, Attorney-General Devens, and Gen. Sherman, the quantity of ferromanganese added must torney-General Devens, and Gen. Sherman, the quantity of ferromanganese added must to the grounds about 10 clock, where they were received by the directors. They were then escorted to the main building, where Mr. William M. Galt, Pesident of the Fair Association, delivered an address of welcome, to which the President of the Fair Association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the president of the Fair association, delivered an address of welcome, to which the President of the Fair association, delivered an address of welcome, to which the president of the pig and ore process, pure and simple, with the marganese added must to to 18 to 18 or 1

METALLURGICAL NOTES.

THE PIG AND ORE PROCESS FOR MILD STEEL.

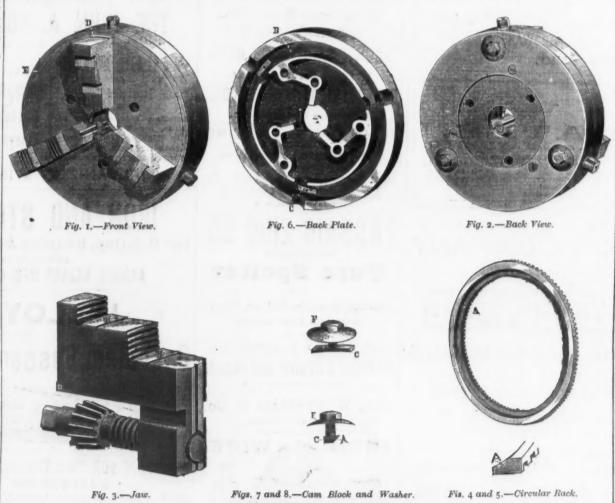
which contains no more than .12 to .15 of carbon and .15 to .20 per cent. of manganese. To manufacture such metal in a regular and economical manner by means of the pig and ore process, pure and simple, is a THE PIG AND ORE PROCESS FOR MILD STEEL.

M. Pourcel, in reply to the criticisms of his remarks on the Siemens or pig and ore process, has given his experience with that process when used for making mild steel. He says in a communication addressed to our English contemporaries: In the manufacture of soft metal, when the carbon goes



THE DAVIS TRANSFER LATHE

down as low as 0.3 per cent., the samples is added, because the waste is almost con-phorization was effected to a certain extent are very much honeycombed and oxidized, the quantity of oxygen dissolved in the metal increasing as the carbon decreases. The molten metal becomes more and more red-short and less fluid, because the heat penetrates the thick layer of slag which covers it with difficulty. When we have to



THE SWEETLAND-HORTON CHUCK.

Forno-Convertisseur, says Mr. Thomas. Of that I am aware, but I have also been informed that the metal could not be run into It is noticed in mill mortars crushing gold ores, that wherever a little stray amalgam finds lodgment it rapidly increases in quanores, that wherever a little stray amalgam finds lodgment it rapidly increases in quantity. As soon as a copper plate is coated with quicksilver, the quicksilver begins to eat into or dissolve the copper, and the particles thus liberated float to the surface, where, coming in contact with air or other salifying agents, produce that extremely annoying film known as "verdigris," and so prevent the contact of gold and quicksilver necessary to amalgamation. This action or solution, though extremely slow, is sure and certain, and continues as long as the two metals are exposed to direct contact. The coating of mercury on a copper plate, though usually very thin, always has an appreciable depth, sufficient at any rate to permit of the movement and arrangement by gravity of particles held in suspension therein, and as the copper is slowly dissolved away the place of its atoms is immediately filled with others of denser gold amalgam, and the form of the plate is thus preserved, though in substance it is gradually changing from copper to gold amalgam. This process is, of course, more rapid in the beginning, when the mercury has free access to the copper, than it is later on after more or less gold has intervened between the two metals, and it gradually diminishes until the verdigris than it is later on after more or less goid has intervened between the two metals, and it gradually diminishes until the verdigris or oxide of copper only rises in such small quantities that it is ground off by the action of the running pulp on plates in active use as fast as it forms, and not until plates reach this condition are they presumed to reach this condition are they presumed to be in good shape for gold saving. Now a be in good shape for gold saving. Now a plate that is sending up verdigris, even in the smallest quantities, is not as good as one that does not, and therefore a copper plate never does become the equal of a gold one, and is never considered in prime condition until it has actually accumulated and secreted more than enough gold to form a plating sufficiently heavy to insure insulation of the quicksilver from the copper, even in case of the rather severe scraping with steel tools to which it may be subjected. It cannot be doubted that the gold so accumulated could be much better applied as a plating, for it would then present a smooth, solid and even surface, and practicably invulnerand even surface, and practicably invulner-able to the inroads of the quicksilver, whereas by the present method it is slowly deposited as a hard amalgam, which event-ually renders the plates so brittle that they become fit only for the fire.

THE INPLUENCE OF SILICON ON THE REFIN-ING OF STEEL.

An interesting experiment, which shows the effect of silicon in preventing the reduction of phospherus in acid in the cinder of an open-hearth furnace, is given by M. A. Pourcel, of Terrenoire. A 3 ton charge, containing 250 per cent. of carbon and 0.50 per cent. of phospherus was melted in an open-hearth furnace. As soon as the charge was thoroughly melted, the slag which covered the metal was removed, and the surface of the bath laid bare. The gas was then shut off, and the hot air alone allowed to pass through the furnace. At the end of 15 minutes a black slag had formed on the surface of the bath, and during its formation jets of carbonic oxide gas were constantly rising from the metal. This fact should be noticed. Samples of metal and slag were then taken, and the gas again let on to reheat the bath. The phosphorus was estimated in the metal and slag, and the percentage in the former was found constant, viz., 50 per cent., the slag showing no traces of this alment. An interesting experiment, which shows stant, viz., 50 per cent., the slag showing no traces of this element. When the bath had been reheated the slag was again removed, the gas shut off, and a second refining of fected, as before, but, instead of allowing carbonic oxide to form, an addition was made of a certain quantity of silicide of iron manganese, containing 20 per cent. manganese and 10 per cent. silicon, which completely prevented the disengagement of carbonic oxide gas. After a quarter of an hour the jets of carbonic oxide again appeared, and a sample of the metal was taken before the gas was turned on, and the slag formed during the passage of the air only was re-moved. The metal now yielded, on analysis, only 0.35 per cent. of phosphorus, and a very appreciable amount was found in the slag, although it was not estimated quantitavely. The experiment was repeated, but instead of taking samples immediately on the reappearance of the jets of carbonic oxide after the action of the silicide, and instead of clearing away the slag formed during this clearing away the alag formed during this period, which slag contained the phosphorus that had been scorified, samples were not taken until 15 minutes after the gas was turned on and boiling of the bath had recommenced. It was now found that the phosphorus had disappeared entirely from the slag, and had been reabsorbed by the metal, which yielded, on analysis, its original content wire of oner cent. Thus under

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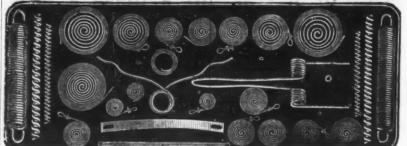
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trate the development and progress of iron and steel as constructive materials. A rapid glance at their history to the present time may aid us in indicating the lines along which their utilization in future is likely to

have been found in the remains of Mycene or of Troy. A large iron plate, however, has been discovered in one of the Egyptian pyramids. In the time of Homer iron was a rare and costly commodity, more highly prized than gold. The poet never mentions it as the material of armor or weapons, which were entirely of bronze, but in two passages in the Iliad iron axes are mentioned as valuable prizes in the athletic tioned as valuable prizes in the athletic

Iron was not employed for weapons by the Iron was not employed for weapons by the Romans before the time of Hannibal in the second Punic war, but once adopted, the the practical genius of the Roman people perceived its advantages, and entered upon its manufacture with avidity. It is not probable that either the Greeks or Asiaties knew the process of extracting iron from the ore. Both iron and steel are found occasionally in a native condition, principally the large of the most celebrated of these is the casionally in a native condition, principally the pridge over the Menai, having two

from the scoriæ and cinder heaps left by the Romans.

Once adopted, the superiority of iron over every other metal for tools and implements led to the supergession of all other materials for that purpose, and the use of iron entered upon a progressive career, which has extended with the advance of society in an ever-increasing ratio. One of the first purposes to which iron was applied was that of weapons and armor, the manufacture of which attained in the Middle Ages a very high degree of excellence; the hauberks of chain mail of the most intricate and delicate patterns, the chased and inlaid suits of the most intricate and delicate patterns, the chased and inlaid suits of the manufacture of superiorization and color of the first purposes to which are not yet published.

One of the first to introduce iron into ship-building was Mr. Fairbairn, of Manchester, who in 1830 built three iron steam vessels for the Forth and Clyde Canal Company, and subsequently many others for use at home and abroad. The first sea-going iron ship was the Richard Cobden, built in 1844 at Liverpool by James Hodgson & Co.; she

British Iron and Steel Institute.

In preceding issues of the Iron Age, we published together those communications which related directly and indirectly to the manufacture of steel proper. Another class of papers was that bearing upon the uses of iron and steel and some of its properties. Although hardly of any strictly practical importance, the following paper by Mr. J. A. Picton, F. S. A., of Liverpool, will be read with interest.

ON THE PROGRESS OF IRON AND STEEL AS CONSTRUCTIVE MATERIALS.

The object of this paper is shortly to illustrate the development and progress of iron and steel as constructive materials. A rapid span. Part of the work was actually pre The object of this paper is shortly to illustrate the development and progress of iron and steel as constructive materials. A rapid glance at their history to the present time may aid us in indicating the lines along which their utilization in future is likely to be carried.

The earlist mention of iron is found in the Book of Genesis, chap. iv., 22, where we are told that Tubal Cain was "an instructor of every artificer in brass (or bronze) and iron." The Hebrew word is barzel, from a root signifying hardness and strength. We read also of the iron bedstead of Og, king of Bashan, and of Sisera's 900 chariots of iron, 1300 years before our era. In the time of Agamemnon iron was not in general use. No implements or weapons of this metal have been found in the remains of Mycenæ or of Troy. A large iron plate, however, some years cast-iron bridges had all the sway, constructed either with voussoirs or arch ribs, but have more recently been almost entirely abandoned for structures in wrought iron.

wrought iron.

Then followed the suspension bridge, of which probably the most graceful specimen is Telford's beautiful structure over the Menai Strait. This was originally designed in 1814 to span the river Mersey at Runcorn, on the site now occupied by the railway bridge; but the means were not forthcoming, and the project slept until revived in 1819 for the new site, and was completed in 1825.

The rapid development of the railway system from its initiation by George Stanker.

knew the process of extracting iron from the ore. Both iron and steel are found occasionally in a native condition, principally of meteoric origin. Hence it is supposed originated the Greek name for iron, from the same root as sidus, the Latin for the starry heavens. The Romans in Britain practiced the art of extracting the metal from the ore on a large scale. Their works were principally carried on in what is now the Forest of Dean in Gloucestershire, and that of Anderida in Sussex, in both of which enormous quantities of scorize and cinders have been found. With imperfect methods they were unable to fuse the ore so as to produce cast iron, and it is probable that the metal was refined by several processes before it was finally adapted for use. The mines had been previously worked, for Cæsar on his arrival found the Britons in possession of iron, though it was employed more for ornament than use.

This imperfect method continued down to the sixteenth century, when the introduction of cast iron, the mannfacture of which was for a long time principally supplied from the scorize and cinder heaps left by the Romans.

Once adopted, the superiority of iron over

and subsequently many others for use at home and abroad. The first sea-going iron ship was the Richard Cobden, built in 1844 at Liverpool by James Hodgson & Co.; she was 136 feet in length and 522 tons burden, builder's measurement. Some years elapsed before the example was followed to any chain mail of the most intricate and delicate patterns, the chased and inlaid suits of armor, constantly changing its form, exercised the ingenuity of the armorers, and exhibit in the remains left to us a large amount of ingenuity and artistic skill. Offensive weapons were equally elaborated. The Toledo rapier and the Damascus scimitar had a world-wide reputation, and even in England the Sheffield thwittle in the time of Chaucer had become famous for its quality. Ironwork at this period was of 1853 on the Thames. Her dimensions are works,

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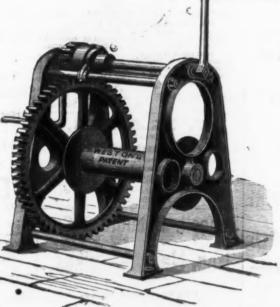
In the Weston Crab the handles cannot recoil on the operator. To lower the load it is necessary to wind the handles backward. It will continue to descend so long as this is done, but will at once come to rest automatically if the handles be let go either in hoisting or lowering.

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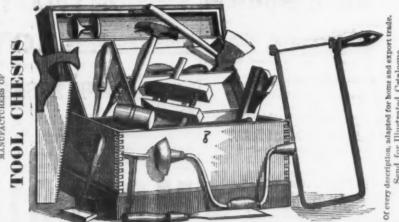
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ng is increased to resist the impact, so that we have arrived at guns of 100 tons and upward, with projectiles of nearly 1000 lbs. weight, resisted by armor plates 10 to 12 lbs. weight, resisted by armor plates to to 12 inches thick. At what point the contest is to end no man can foresee. Iron, also, is being largely utilized for defensive purposes by land. At the present time the new fort now in construction for the defense of the river Mersey is to have wrought-iron plates for the protection of the gunners, some of which are 20 feet long by 11 feet in hight and 8 inches in thickness, weighing 26 tons. and 8 inches in thickness, weighing 26 tons

The subject is so vast, that I might go on the various uses and applications of iron, the various uses and applications of iron, which are constantly increasing in their adaptation to every purpose of human society, but time will not permit. I will only notice the progress of iron in another department, that of building construction. The old materials for building were stone, brick and timber, and with these, especially the first, some of the noblest monuments of art and skill have been constructed. Ison art and skill have been constructed. Iron, in ancient times, played a very subordinate part in building. It is only in modern structures that its advantages have been appreciated. At first cast iron was employed for columns and struts supporting weight, and subsequently for girders and beams, but the streacherous nature of the material when subjected to cross strain rendered its use very hazardous. By degrees wrought iron, by means of improved machinery for rolling, was rendered adaptable for building purposes. A great impulse was given to its employment by the construction of the Crystal Palace, in Hyde Park, in 1851, in which, for almost the first time, the design was adapted to the na-ture of the new material. This led the way to further improvements. Rolling mills were constructed to manufacture girders and joists of lengths and sections not previously attempted, and the result has been the employment of wrought iron to a very large extent in roofs and floors. Concur-rently with this progressive movement, the demand for roofs of very large span in railway stations has stimulated design, and led to the construction of iron roofs of a magnitude never before contemplated; the width of span in several cases approaching 300 feet, and the large areas covered, as in the stations of St. Pancras, at Birmingham, and at Lime street, Liverpool, are such as cast into the shade all former constructions of a like kind.

Iron floors have not in England been adopted to any very large extent, but in in France, especially in the new quarters of Paris, they are almost universal. The girders and joists are of rolled iron, with iron laths dropped in between, on which is spread a coating of concrete, rendering the spread a coating of concrete, rendering the structure perfectly fire-proof. Iron lends itself readily to the construction of dome roofs, of which recent specimens are found in the reading room of the British Museum, and in the one recently erected in connec tion with the Free Public Library, Liver-

I have endeavored in the above remarks which the progress of iron construction has been advancing. I will conclude with a few words on the direction in which these lines

are leading us.

Notwithstanding the enormous develop-ment of railways both at home and abroad, and the depression consequent on excessive and imprudent expenditure, there can be no doubt that the railway system has still a great future in store. There yet remains much land to be possessed. European enmuch land to be possessed. European enterprise will never cease until all the lines of intercourse where commerce finds its way are provided with railways. The adoption of steel for rails, thanks to the genius and enterprise of Sir H. Bessemer, Dr. Siemens and others, has much facilitated these operations, and holds out to the British manufacturers the prospect of a profitable ampleyment of their pect of a profitable employment of their capital. Machinery, whether locomotive or capital. Machinery, whether locomotive or manufacturing, is undergoing a constant but quiet revolution, consisting in improved economy of materials, rapidity of motion and increased efficiency. Iron ships, especially steamships, are increasing in size and power, to which the introduction of steel plates will impart greatly increased advantages. In warlike affairs, whether the contest between armor plating and armor piercing has reached its acme, I will not take upon myself to say. The final decision of the problem is one of great interest as to the future employment of iron for such as to the future employment of iron for such

The facilities of iron, especially wrought iron, for all engineering constructions are more and more appreciated year by year, but with some few exceptions there is a but with some few exceptions there is a great defect runs through them all in the absence of anything of esthetic taste in the designs. The ancient motto for building was "Strength, commodity, beauty." The first two have been attended to almost to the entire neglect of the third. This I cannot help thinking is a great mistake. The grand engineering works with which the surface of our country is studded should have a dignified and noble aspect. They have a dignified and noble aspect They should minister to the sense of beauty and fitness as well as to that of strength and power; but too frequently the reverse is the case. I will refer to an instance or two. The railway viaducts built by Brunel over the rivers at Chepstow and Saltash are grand specimens of constructive skill, but their aspect is repulsive in the extreme. Let any one compare London Bridge, with the graceful curves of its arches and its sim-ple, yet elegant, design, with the iron bridge of Blackfriars, or, still worse, with the railway bridges crossing the Thames; the contrast will be found painful in the extreme. trast will be found painful in the extreme. The railway bridge at Runcorn, by Mr. Baker, with its light iron latticework and the sweeping lines of the viaducts on each side, is a fine and noble structure. Telford's suspension bridges at Conway and the Menai are charming in their outline and fairy-like in their construction, while their neighbors, the tubular bridges, are the very incarnation of ugliness. This is a defect not inherent in the material, for iron readily lends itself to any shape of beauty. It rather arises from contempt or inadver-It rather arises from contempt or inadver-tence, looking at strength and power as

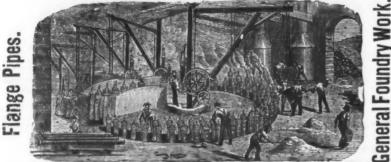
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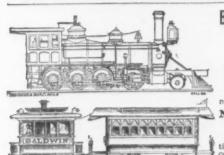
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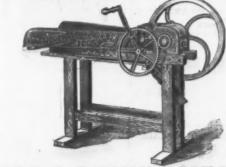
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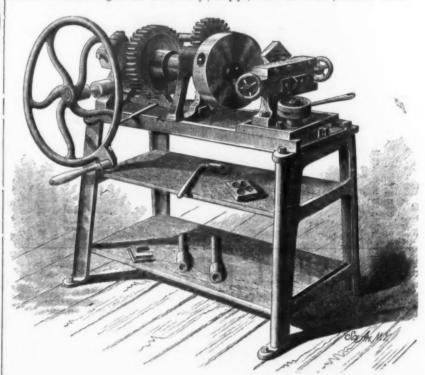
that a better spirit may be evoked, and that our future engineering works in iron may be as distinguished for beauty of design as they are now renowned for grandeur and efficient outside or outside doors. Hobart B. Ives, of

ciency.

In architecture properly so called, iron is doubtless destined to play a very important part. Hitherto architects, as a body, have neglected iron. When employed, they have striven to hide it from sight, and seem to applogize to themselves and the world for being obliged to use it instead of brick or stone. Its use, however, is being forced. stone. Its use, however, is being forced upon us, and on every side we are met with iron sheds, iron churches, iron houses. The designs of these are usually hideous to behold, but why should this be so? Why should architects not face the difficulty, and, instead of letting iron master them, convert it into their handmaid and servant?

Our illustration represents Messrs. D. Saunder's Son's, Yonkers, N. Y., new pipe-cutting and threading machine, called the I X L. It has three changes of speed, which are made by the movement of a lever shown at the front of the machine. The slow speed is used on work from 1½ up to 2 inches. convert it into their handmaid and servant? The mediævalists followed a different course. They took the material which lay before them, and, by a happy audacity in design and skill in construction, they produced effects which, for composition of masses, picturesqueness of outline, and brilliance of inventiveness, have ever since been the admiration of the world.

In a manner quite similar to the "discussion" following M. Pourcel's paper, Mr. Picton's communication was the ismocent cause of much debating on the advisability the pipe, instead of the dies, revolve. ause of much debating on the advisability | the pipe, instead of the dies, revolve. There



I X L PIPE CUTTING AND THREADING MACHINE

of reducing the tests required for steel for shipbuilding chiefly. The severity of the present tests excludes any but very mild, high grade steel, the price of which is such that it places steel at a disadvantage with item of the time which would be necessary to do it by hand, which would be necessary to do it by hand. iron for ship plates.

Burglar Proof Door Bolt.

We illustrate herewith what is known as Ives' Patent Burglar Proof Door Bolt. Fig. 1 shows the general appearance of the article, while Fig. 2 shows the internal con-struction. By inspection of the engravings it will be seen that its parts are very few and the construction exceedingly simple.

Its application to the door is by means of a round hole bored for the purpose. The striking plate is inserted into the jamb or casing in the same manner.

It will be seen that its parts are very lew is very well adapted. Taken altogether the tool seems to be a valuable one.

Another "oil metropolis" has been wiped out by fire. This time it is Parker, Pa., a little city on the Allegheny River, 82

in about one-third of the time which would be necessary to do it by hand, which would make a very great saving in case of a large job. It is said that even ¼ and ½ threads can be cut more quickly by the machine than by hand tools. These machines are arranged to be driven by both hand and power. The machine is very handy for cutting off round iron and steel, especially in jobbing shops; in such cases it can be fitted with attachments by which it is converted into a nut tapping and bolt threading machine, for which purpose it is very well adapted. Taken altogether the tool seems to be a valuable one.



The bolt proper is operated by means of a knob, attached to a square spindle shank, the latter fitting into a suitable seat attached to the bolt by a pitman. Movement is communicated to the bolt after the manner of a crank by simply turning the knob. To temporarily lock the bolt in either of its two positions, the pitman is constructed and arranged to operate in the manner of a lever spring.

The knob is provided with a suitable estable of the river, but the finest buildings and the business portion of the place is on a narrow bottom on the north side of the river, but the finest buildings and the pusiness portion of the place is on a narrow bottom on the north side of the river and at the foot of a steep bluff, on which are built the residences of the wealthy citizens. The stores on the bottom land are situated on two long streets—Railroad street and River avenue. Most of the buildings had all the characteristics of a fast oil town. They were built generally of



Fig. 2.-INTERNAL CONSTRUCTION.

(Fig. 1), by which also it is held in place against the face of the door, and the spindle in turn, to which the knob is attached, serves to hold the bolt in place in the door. A 13-16-inch bit is required for the hole in the edge of the door to receive the bolt, and a ½-inch bit is used for the knob or thumb key. A 13-16-inch bit is also used for the striking plate, the latter being made large enough to admit of driving into position to insure a close fit. There is no other cutting or fitting required. Two small screws fasten the escutcheon in place. The hole in the striking plate to receive the end of the bolt is somewhat elongated in a vertilintervals of four weeks.

ranged to operate in the manner of a level spring.

The knob is provided with a suitable escutcheon, which is shown in the engraving cutcheon, which is shown in the engraving shop fronts were generally covered with plate glass. Parker is next to Oil City in importance as an oil market in that region. The fire broke out about 3 o'clock on the morning of the 30th ult., and as the wind was blowing briskly the flames soon spread. The people seemed to lose all common sense, and for some time even the limited fire apparatus at their command was not used as effectively as it should have been. The flames spread so rapidly that a panic took place. The fire was under control by about 9 o'clock, although frequent alarms were place. The fire was under control by about 9 o'clock, although frequent alarms were given of a fresh outbreak during the day. The fire is thought to have been of incendiary origin. Nearly all the lots in the burned district belong to the Parker estate, and, as a high ground rent is charged for them, it is not probable that many of the burned structures will be rebuilt. The loss is about \$200.000.

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Clark Bros. & Co., Carriage Bolts, &c., Lowerre & Tweker, the Genu ine Knox Tuting Machine. T. B. Basclay, "Dodge's" Kentucky Cow Bells. Lane Bros., Swift's and Gro-cors' Coffee Milis and Measuring Faucets, &c. T. C. Richards Hardiscare Co. Bright Wire Goods, Picture Nails, &c.



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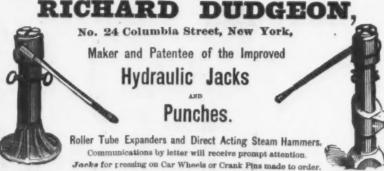


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wn to a point from the rod, thus is the only Hot Forged and Hammer Pointed Horse Shoe Nail, made by machinery, in the World.

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The Duty on Old Iron Rails.

The Bulletin of the American Iron and Steel Association has the following, which will be read with interest, as the duty on old iron rails is an important matter in view of the recent increase of importations: The Baltimore and Ohio Railroad Com-

pany recently appealed to the Secretary of the Treasury from an assessment of duty levied by the Collector of Customs at Baltimore, at the rate of 70 cents per hundred pounds, on certain old iron rails imported per steamship Germania. The appellants claimed that the rails in question were fit only for remanufacture, and should be classified as wrought scrap iron, at a duty of \$8

per ton.

After a general review of the subject, Assistant Secretary French, in his opinion, says: This Department has to state that the general fitness for use, other than the re-manufacture of old rails imported into the United States, is not to be determined by the mere possibility of such use, because it no doubt would be possible, by adapting new doubt would be possible, by adapting new fish plates, to use, without remanufacture, very many of the old rails imported in good faith for rerolling purposes. The general character of the importation should be considered, rather than the exceptional condition of a small part of it, where, as a whole, the rails are only fit for remanufacture. Where there is evidence of a fraudulant intention to pass as ever in rails. lent intention to pass as scrap iron rails suitable for other uses than remanufacture, with intent to use them as rails without rerolling, it is the duty of the customs officers to seize them for forfeiture.

Old rails, of a character which are not generally used in the United States, are double-headed rails, and which, by their special character, are generally unfit for purposes in this country other than re-rolling, may properly be classified as old

scrap iron.

The classification of invoices of old iron rails may be determined generally by the obvious uses for which they are intended, and they should be admitted at a duty of \$8 per ton, unless there are reasons for believing that they are to be sold and used in the condition as imported without being re-

Upon a perusal of the report of the ap-praiser in the present case, and considering the character and condition of the rails in controversy, it is evident that a strict application of the terms of decision No. 4129 (under which the duties in this case was assessed) might justify the classification of such rails at the rate of duty imposed upon such rais at the rate of duty imposed upon new rails, but the department is of opinion that a broader view may be safely adopted in determining generally the classification of these rails for duty. The report of the appraiser further shows that, under the views above expressed, the rails involved in this appraisance of a character which may this appeal are of a character which may properly be regarded as old scrap iron, fit only

for remanufacture.

The Collector of Customs has, therefore, been authorized to readjust the entry at the duty of \$8 per ton, and forward a certified statement for refund of excess of duty exacted.

The Nettlefolds Card.

As a matter of information, in view of the arge amount of iron that is ordered from abroad, we append Nettlefold's card on iron. This varies materially from the standard South Staffordshire card, which many American buyers have :

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Dest Dain				42	s. d.
Best best bars al	bove base.				0 0
" rivet	0.5			. 2	0 0
Wire rods for dr	iving fenc	ing	fro	m 4/0	to
B. W. G.					lase
Dest pi	addled do.	above	base		
" best, b	HOUSE	50 . 81		. 1 1	10 (
" extra l	best "			. 8	0 4
	EXTRAS PI	ER TON.			
Ro	ounds and	Square	S.		
Diameter	7-16 to 36	7-32 to	3-16	5-39	
	10/	25,		50/	
Birm. Wire, (4/0 to 4	5	6	7	8
	10/	20/	25/	35/	55/
Tr	aproved 1	Machine	-made	Rod I	ron
Diameter	1/6			-32	-
	140	1		40/	
Birm. Wire,			22	22	
Gauge No	9	10		8.1	
	100/	840/	180/	240	0/
	Flat	s.			
	T	ickness	in inch	es	
Width in inches.		3-16,		36. 9-	22
14 to 11-16	80/	30		20/	
% to 15-16	40/		2/	10/	1
z to 3	30/	8.0	/		
Width in inches		36. 21			
Width in inches.		36, X	3-33	7-16	

Wire Rods and Rolled Fencing Wire.
Birm. W. G. No. 5 6 7 All Bars cut to exact lengths 5/ per ton extra

All Bars cut to exact lengths 5/ per ton extri Rounds and Squares, up to 5·16, put up in ½ cwt. Bundles, 12 feet long.
Rounds and Squares from ¾ to ¾ put up in 1 cwt. Bundles, 12 feet long.
Rounds and Squares ¾ and larger, in single Bars, about 17 feet long.
Flats. up to ¾ wide, put up in ½ cwt. Bundles, 12 feet long.
Ovals, &c., up to 5·16 thick, put up in ½ cwt. Bundles, 12 feet long.
Ovals, &c., up to 3½ to ½ thick, put up in 1 cwt. Bundles, 12 feet long.
Flats, 1 in. wide and larger, in single Bars, about 17 feet long.
Ovals, ¾ in. thick and larger, in single Bars, about 17 feet long.
Ovals, ¾ in. thick and larger, in single Bars, about 17 feet long.

about 17 feet long.

Prices are free on rails, or in boats, at the works.

All iron is delivered at undamageable rates (buyers risk), and carriage charged on invoice unless
otherwise arranged. Terms, cash on 10th of month
for previous month's deliveries, less 2½ per cent.
discount.

The manager of the Burlington and Lastation. A stream of water from a brook is again heated and rolled into steel railway turned into the flume and the wood floats down very rapidly, and at the terminus is

But whether they insist that these blooms down very rapidly, and at the terminus is shot on to the cars, while the water falling short flows away into the river. Thirty cords of wood are placed on the cars in this purpose in either case is the same, viz., to manner every day.

THE DUTY ON STEEL BLOOMS.

Statements of Both Sides of the Case.

Below we present a variety of interesting reading in the matter of the duty on steel blooms:

Statements and Affidavits on Behalf of Importers.

The following statements and affidavits in behalf of importers, were presented to the Treasury Department by their counsel, during the consideration of the question of the classification of steel blooms, lately decided by Judge French:

STEEL BLOOMS AND THE PROPER DUTY THEREON.

Steel blooms are not, as such, mentioned in the present tariff. A steel bloom is a form of steel which is sold in the market for the purpose of afterward being made into various manufactures of steel.

An ingot of steel is a casting of steel, just

An ingot of steel is a casting of steel, just as it has been taken from the mold into which the melted steel has been poured. Its texture is crystalline, and it contains more or less blow-holes, so-called, which occur in the casting. A steel bloom is made from an ingot, by heating the ingot, and by then rolling it in the blooming mill, or by then hammering it under steam hammers. The object of this rolling or hammering is to make the steel more compact, by removing the blow-holes, and to, as it were, lengthen the texture of the steel, and thus give it strength.

In practice, a steel ingot has been passed

In practice, a steel ingot has been passed through the rollers at least a dozen times before it becomes what is called a bloom. Steel blooms may be of various sizes and shapes, but the size which has chiefly been imported into the United States weighs from 600 to 700 pounds (See the affidavit of

Mr. Nock, hereto annexed).

Steel blooms have been imported into the United States at least since 1867, in which United States at least since 1807, in which year the appraiser at New York first classified them as steel in any form not otherwise provided for, and assessed them at the rate of 30 per cent. ad valorem. He afterwards classified them as manufactures of steel, or articles of steel partly manufac-tured, and assessed them at the rate of 45 per cent. ad valorem.

This classification and rate was approved by the Treasury Department July 27, 1867, and again May 8, 1863, and again May 20, 1870, and again August 27, 1879, and again in September, 1879.

We armex copies of the decisions relating thereto, and also of the provisions of the tariff, thought to be important to be considered in connection therewith.

And now, after a uniform ruling for the past 12 years, without any change in the facts or in the tariff, the department is called upon to change its ruling, not from the suggestion of its own officers, and not from the suggestion of the importers, but at the suggestion of steel manufacturers in the United States, who have no interest in the matter except to prevent the importation of the blooms.

It is demanded in behalf of these manu-It is demanded in behalf of these manufacturers that the duty to be levied on steel blooms should be a specific duty, instead of an ad valorem duty, and this demand is made because, since the Tariff Act was passed in 1864, the cost of the production of steel has so much diminished, and the market value thereof proportionately been so lessened, that the specific duties in the tariff upon steel articles have, in fact, become rohibitive duties.

It is evident, from an examination of the tariff on steel, that it was the intention of Congress to fix a duty of from 30 to 50 per cent. on all forms of steel and steel manufactures, for whenever the duty is ad valorem, it runs from 30 to 50 per cent., and whenever it is specific, and a comparison is made with the price current, at the time (1864) it will be seen that the specific duties as fixed were, as above stated, from the comparison of the compa duties as fixed were, as above stated, from 30 to 50 per cent.; take, for instance, the following paragraph: "Steel in ingots, bars, coils, sheets and steel wire, not less than one-fourth of I inch in diameter, valued at 7 cents per pound or less, 214 cents per pound; valued at about 7 cents and not above II cents per pound, 3 cents per

The duty of 21/4 cents per pound on ingots worth 7 cents per pound would be a little worth 7 cents per pound would be a little more than 30 per cent., the duty at 3 cents per pound on ingots worth from 7 to 11 cents per pound would vary from 43 per cent. to 27 per cent.; and thus if, in 1864, steel blooms had been classed as steel ingots, they would not have had to pay a specific duty of more than 35 per cent

In 1867 no one seemed to consider that a steel bloom was possibly either a steel ingot or a steel bar.

or a steel bar.

The only question was whether it was a manufacture of steel, or whether it was steel in some form not provided for. As we have said, it was first held to be the latter, and finally classed as the former; so that, in 1867, the department classed steel blooms in that class in which it was able to obtain the highest possible duties at the time, namely,

To-day the price of steel railway bars in England is about 11/4 cents per pound, and the price of steel blooms is about one cent per pound.

One and a quarter cents per pound on steel railway bars is equal to an ad valorem duty of about 100 per cent., and 2½ cents per pound on steel blooms would be equal to about 200 per cent. ad valorem. So that now we find the steel manufacturers here insisting, on the one hand, that steel blooms are ingots, and on the other hand, that they The manager of the Burlington and Lamoille Railroad, in Vermont, has in use an ingenious method of conveying cord wood a distance of two miles and landing it on the cars. He has erected a small flume from a point near the timber leading to the cars. A stream of water from a brook is a small of the cars.

are steel in its crudest state, or in its com-plete state of a manufactured article, their

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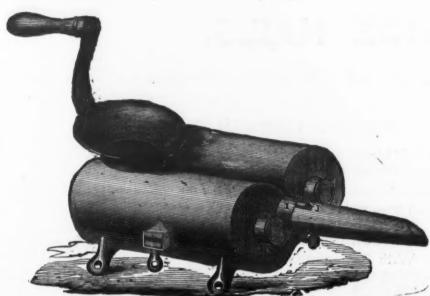
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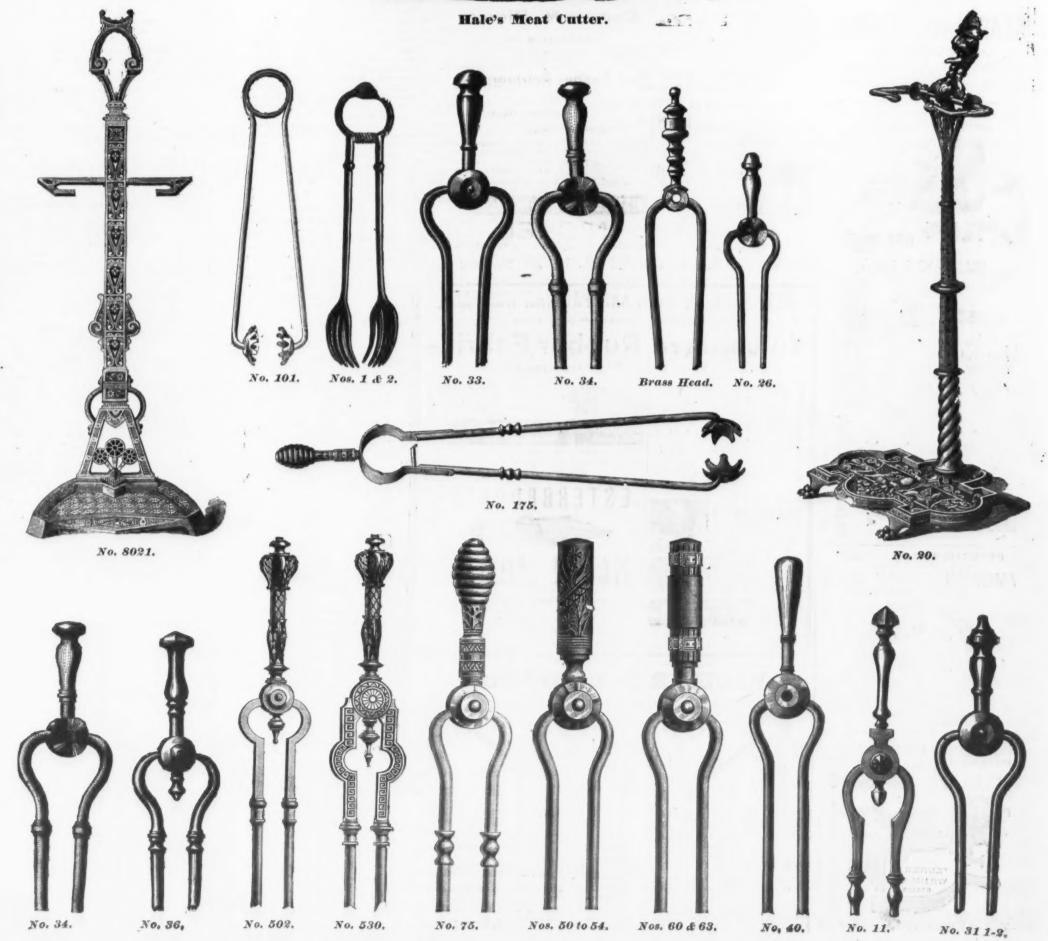
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us to give greatly reduced estimates for complete outifis.

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steel blooms in such a way that they cannot be imported into the United States.

The inconsistency of these steel manufac turers is very great. But it would not be so great as would be the inconsistency of the department for 12 years to classify these the purpose of continuing to charge the highest possible duty.

8. It will not do this at the demand of a articles as partially manufactured articles, and during that time get the highest duty possible ad valorem, and then, when the price of steel had changed, to change that classification and classify them either as ingots or as manufactured articles, in order that they might active the them. that they might again, without any change in the law or in the character of the article, but by a simple change in the ruling, continue to get the highest possible duty under the changed state of facts.

In the behalf of the importers who have imported steel blooms, and who have made

contracts both to buy and sell them, we

say:

I. The department should adhere to its ruling as maintained for the last 12 years, unless it shall determine that it would be a

gross error to do so.

2. If the department is to change its rulings at all as to the duty on steel blooms, it should fix it at 30 per cent., under Section 1041, instead of 45 per cent. ad valorem, under Section 1012.

Steel blooms are not "such manufactures of steel" as are referred to in the paragraph

of steel" as are referred to in the paragraph fixing the duty at 45 per cent.

The manufactures of steel therein referred to are manufactured steel articles which are intended to be used in the general form and shape in which they are imported, as, for instance, axes which had not been fully ground, or shovels which had not yet been provided with handles. provided with handles.

A steel bloom is no more a manufacture of steel than is an ingot or bar or sheet of steel. A steel bloom is steel in a different form from an ingot, bar or sheet; it is of different shape from each of them; it is of different texture from either; it has been rolled, while an ingot has not been rolled at all, and while a bar or sheet has been more all, and while a bar or sheet has been more rolled; but it is no more a rail than it is a spade, or than an ingot is a spade, or than a bar is a spade. The fact that the bloom of the size which is usually imported is of such a size as that one rail can be conveniently made from it without much waste, does not make it a particle resurgestant and tially manufactured rail.

This department has already decided in regard to an importation of steel in sheets, as follows: "Steel in sheets invoiced as the best cross-cut, though it may be used for saws, should not be classified as cross-cut saws partially manufactured, at 10 cents per lineal feet since the material raw is used. saws partially manufactured, at 10 cents per lineal foot, since the material may be used for hay knives, mowing-machine knives and other purposes. It should be classified as 'steel in sheets,' according to its value per pound" (August, 1868, N. O., and April 21st, 1871, N. Y.) So, also, of steel sheets of a circular form (June 19th, 1866, San Francisco).

The same ruling would apply to steel blooms which might be made into rails, for such steel blooms are not partially manufac-tured. They are a form of steel not other-wise provided for, and the duty on such steel by section 1041 is fixed at 30 per cent, ad valorem.

ad valorem.

The section of the tariff relating to "manufactures of steel" follows the express provisions with reference to skates, saws, knives, needles, &c., and evidently refers to similar manufactures of steel not mentioned. tioned.

The section relating to "steel in forms not otherwise provided for" follows the express provisions in regard to "steel in ingots, bars, coils, sheets and steel wires," and evidently refers to steel in some other form from which it is to be manufactured into special articles of steel, and it cannot be maintained but that a steel bloom is such a form of steel.

Under this same section as to steel in any

Under this same section as to steel in any Order this same section as to steel in any form not otherwise provided for, the de-partment has classified steel bars slightly tapered (September 17, 1863, New York). Under this same section it has classified

old scrap steel which consists of various old or broken articles of steel (rulings in New York) And under this same section it has also classified steel rail ends (March 15, 1879,

3. Steel blooms are neither steel ingots, bars or sheets of steel, and are not, therefore, to be classified under section 1038.

The evidence is conclusive on this point.

4. Section 2499 of the Revised Statutes, which provides for the assimilation of nonenumerated articles in order to a proper establishment of the rate of duty, is not applicable to steel blooms.

Steel blooms are a form of steel not speci-ally mentioned, but there is an especial provision in regard to steel in any form not otherwise provided for, and that provision renders the provision as to assimilation inremers the provision as to assimilation in-applicable. And so the department has de-cided in the letter of March 15, 1879 (see the letter hereto annexed), with reference to the ends of street railway bars, in which the department has fixed the duty upon them at 30 per cent. ad valorem, as steel in a form not provided for. A similar decision must undoubtedly be made as to any attempt to assimilate steel blooms to

5. Even if it were possible upon a fair construction of the tariff for the department, as a new question, either to classify steel blooms in such way that they would pay either 30 per cent. or 45 per cent., or 1½ cents per pound, the department would give it such construction as would allow its importation rather

Affidavit of Thomas G. Nock.

In the matter of duty on steel blooms, be fore the Treasury Department, October 1879.

tion as would allow its importation rather than prevent its importation.

6. Especially should it do this when it is evident from the facts before it that the specific duty would be much higher relatively than it was originally intended to be by Congress, for the reason that, since the act of Congress, the price of the article had very much cheapened.

7. The department having for a series of Bossemer process; I am familiar with that

7. The department having for a series of Bessemer process: I am familiar with that

years adopted a classification which charged steel blooms with the highest duty possible will not now change such classification for the purpose of continuing to charge the

committee of steel manufacturers whose sole

ominities of steel manufacturers whose sole interest therein is to prevent importation.

9. It will not do this to the great injury of merchants who, on the faith of the past decisions of the department, have entered into large business transactions at home and abroad, and who will lose large sums of money if the change is made.

10. It will not do this when the only result will be to diminish the revenues of the government.

11. It will not do this when the holding to its old opinion will be to enable the railroads of the country to obtain the rails needed, but without lowering the price in the United States.

12. It will not do this in regard to a raw material which is to be converted into the manufactured article in the United States by the skill and labor of United States citi-

I3. It should only do this when its former rulings are shown to be clearly erroneous and to the great diminution of the revenue.

CHARLES C. BEAMAN, JR.

AFFIDAVIT OF HENRY A. V. POST.

In the matter of the duty on Steel Blooms, before the Treasury Department, Octo-ber, 1879.

Henry A. V. Post, being duly sworn, de-poses as follows:

I am a merchant, doing business in New York City; one of the firm of Clark, Post & Martin. Our business is largely that of dealing in iron and steel, and I have had to do with the buying and selling of iron and steel since 1850, and have had large transac-

tions therein.

Previous to 1864 the Bessemer steel process, so called, was worked very expensively, as compared with the cost at which it is now worked. The Bessemer process produces a worked. The Bessemer process produces a quality of steel which is not for some purposes so good as steel produced by other processes, but it is sufficiently good for many purposes. In 1864 the price of steel rails made by the Bessemer process was about \$150, gold, in the United States, dutroad, and that price continued substantially the same, never getting below \$100, gold, till 1868 or 1869. Since then the cost of producing steel by the Bessemer process has been so much dimnished that now steel rails made in England by that process can rails made in England by that process can be sold in the United States, duty paid, for about \$60. The price in Europe of what is known as crucible steel, has not changed much since 1864.

The specific duty to-day of r and ry cents a pound on steel rails is now equal to

cents a pound on steel rails is now equal to about 100 per cent. ad valorem, and in 1864 the same specific duty of 1 cent would have been equal to about 30 per cent. ad valorem. The duty to-day on steel blooms, if classed as ingots and bars, would be nearly 200 per cent. ad valorem. In 1864 the same specific duty would have been not more than 40 per cent. ad valorem.

To-day there is a great demand for steel.

To-day there is a great demand for steel rails in the United States, and all the manu-facturers of steel rails are running full, and

are unable to take any orders for the de-livery of steel rails at a date earlier than

April next.

The price of steel rails in the United States for rails made here by the Bessemer process is to-day about \$55, for delivery after April, and steel blooms cannot be imported in the United States, at the market price abroad to-day, and pay a duty of 45 per cent. ad valorem, and the usual expenses thereon, and be here rolled into steel rails, and sold at a profit at less than \$56. So that the importation of steel blooms to be made into rails would in no way lower the price of steel rails in the United States. It would only enable railin the United States. It would only enable railroads that wanted rails to get them at once,
and pay the additional price, which they
will have to pay on rails made from imported blooms if the parties that import
them make any profit.

My firm have made large contracts for
steel blooms in Europe within the last three
months, believing that on account of the
great present demand for steel rails and

Classified steel rail ends (March 15, 1879, Boston).

The department has thus recognized this section as applicable not only to steel in different exterior forms not otherwise provided for, but also to different qualities of steel, for the rail ends, were, doubtless, of Bessemer steel, while the scrap steel and the tapered steel bars were probably of crucible steel. by the department in a letter to our own

bankers.

If the department now determines to assess a duty upon these blooms as steel rails, or as steel in ingots or bars, the importation of them will be practically impossible, and the blooms will have to be resold on the other side at a loss, and we shall be obliged to pay a very considerable sum to cancel our existing contracts there and here. isting contracts there and here.

As a matter of fact, if this change in rul-

ing should take place we shall lose both upon the contracts we have made in the United States, and also upon the contracts we have

made in Europe.

We had proposed to manufacture steel rails from most of the ingots we have imported, but we can sell them in the United States to be used for other manufactures of steel, and will do so if we can import them

by paying 45 per cent. ad valorem.

They are of such size that one rail can be conveniently rolled from them, but we can roll conveniently a great many other articles from them, and find abundant market for

HENRY A. V. POST.

AFFIDAVIT OF THOMAS G. NOCK.

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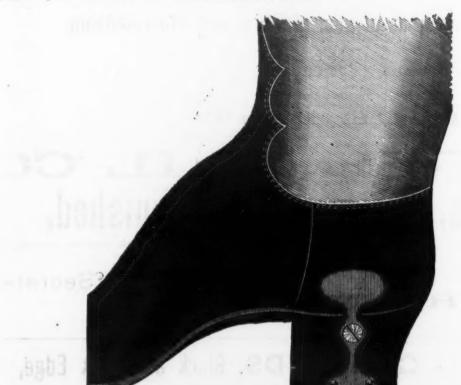
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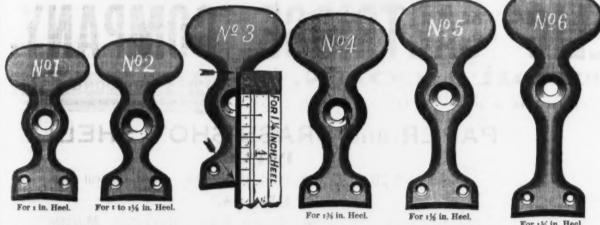
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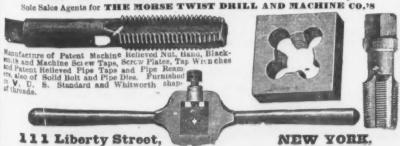




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is known as a needle texture

After the rolling in the blooming mill, the steel is taken to the hammer, and there cut into two or more pieces, each of which piece is called a bloom; these blooms are in no sense a manufacture of steel any more than an ingot, or a bar, or sheet steel; they are steel in a different form either from ingots, or bars, or sheet steel; these blooms are steel in a form in which they are ready to be manufactured into the desired ready to be manufactured into the desired articles; the most of the steel blooms that I have seen have weighed from 600 to 700 pounds, and have been about 7 inches square, and from 3 to 4 feet long; if these steel blooms are to be manufactured into billets, blooms are to be manufactured into billets, bars, sheets or rails, they would be again heated to a red heat and passed through the rollers that would give to them the size and shape desired.

shape desired.

This additional heating and rolling would entirely remove the blow-holes, if any were left, and would still further elongate the texture of the steel and make it of more needle ture of the steel and make it of more needle texture; the effect of additional rolling upon steel is to give it more strength and ductility and fit it better for tempering; there is nothing in the shape or size of a bloom to indicate into what articles it is proposed to manufacture it; but as steel blooms are, to a very considerable extent, made into steel rails in the works is this country most of the blooms. I have in this country, most of the blooms I have seen have been of a size and weight adapted

for the manufacture of wire and various small sizes of round, square or flat steel. If bar steel is made from blooms, then a

bloom will make more or less bars, according to the size of the bloom and of the bar required. Steel from bars is generally manrequired. Steel from bars is generally manufactured into a variety of tools and agricultural implements.

A steel bloom may also be rolled into a sheet in the same way that it would be rolled into a bloom the property of t

STATES.

"1012. All manufacturers of steel, or of which steel shall be a component part, not otherwise provided for, 45 per cent. ad valorem. But all articles of steel partially manufactured, or of which steel shall be a component part, not otherwise provided for, shall pay the same rate of duty as if wholly manufactured.

"1013. Steel railway bars, 11/2 cents per

1014. Railway bars made in part of steel, I cent per pound; and metal converted, cast or made from iron by the Bessemer or pneumatic process, of whatever form or description, shall be classed as steel. * * ""1038. Steel in ingots, bars, coils, sheets "1038. Steel in ingots, bars, coils, sheets and otherwise, not less than one-fourth of I inch in diameter, valued at 7 cents per pound or less, 2½ cents per pound; valued at above 7 cents and not above II cents per pound, 3 cents per pound; valued at above II cents per pound, 3½ cents per pound and Io per cent. ad valorem.

"1041. Steel, in any form not otherwise per cent. ad valorem.

provided for, 30 per cent. ad valorem.
"Provided, That no allowance or reduction of duties for partial loss or damage shall be hereafter made in consequence of rust of iron or steel, or upon the manufactures of iron or steel, except on polished Russia sheet iron."

PAST DECISIONS OF THE DEPARTMENT. Steel Blooms-Steel Tire Blooms.

TREASURY DEPARTMENT, July 27, 1867. SIR: Your communication of the 26th instant is received, enclosing a further report from the United States Appraiser at your port on appeal (No. 4470) of Messrs. John Triffet & Brother from your decision assess-

process, and have often visited the various works in the United States that are manufacturing steel by that process; I am familiar with what is known as a steel bloom, and have been for at least 10 or 12 years; a steel bloom is steel in a different form either from an ingot, or from a billet, or from a bar, and these differences consist in the difference of time in the process of manufacture at which it is put upon the market.

Steel made by the Bessemer process or by the crucible process is first cast into an ingot, which ingots are of the size and shape of the mold used, and which ingots have the greater or less imperfection of all castings; these ingots have a crystalline texture, and, besides, have more or less blowholes.

Steel is sometimes sold in the shape of ingots, which in a general sense is the only product of the steel works, but generally in connection with the works where the steel is produced there is also a blooming mill, so called, in which blooming mill various improvements and patents have been made; this blooming mill consists generally of a furnace in which the ingots are heated to a red heat, and also of what is called a three-high train of rolls, by means of which the

furnace in which the ingots are heated to a red heat, and also of what is called a three-high train of rolls, by means of which the heated ingot is passed through the rollers a dozen times or more, till it has acquired such shape and texture as is desired.

By this rolling the blowholes are mostly removed, and the texture of the steel is changed from the merely crystalline texture of the ingot, to a texture in which, so to speak, the grain is elongated, making what is called a three-high train of value of the steel shall be a component part, not otherwise provided for." ponent part, not otherwise provided for."

Duty on Steel Blooms. TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
WASHINGTON, D. C., May 20, 1870.

Messrs. Heyerdahl, Schonberg & Co. P. O. Box 3805, New York.—GENTLEMEN: Your letter of the 19th instant is received, inquiring the rate of duty on Bessemer steel blooms and plates of English iron known as iron fish plate or fish bars.

ect to a similar classification and rate of

Department's decisions of December 11, 1867, and November 14, 1868, held that "wrought-iron fish plates, fish joints or splice bars" should be classified by assimilation, by virtue of Section 20, act of August 30, 1842, as wrought-iron railroad chairs, at 2 cents per pound, under paragraph 14, Section 3, Act June 30, 1864; all spikes and bolts for like use at 2½ cents per pound under paragraph 16 of the same section and act.

I am, &c., (Signed) Geo. S. Boutwell, Sec.

in this country, most of the seen have been of a size and weight adapted to the making of one or two rails.

A steel rail is made from a bloom by heating the bloom to red heat and by passing it through the roller from 13 to 15 times; if the bloom is of the size I have above indicated it would only make one rail, and when it was rolled the ends would be cut off, leaving the rail of the proper length, say, 30 feet; if the bloom was rolled into billets, it would make more or less, according to its size; a billet is generally from 1½ to 1½ inches square and of different lengths, say, from 6 to 12 feet. Billets are generally used for the manufacture of wire and various of the manufacture of wire and various of the manufacture of wire and various for the manufacture of the steel.

Duty on Steel Rail Ends.

Treasury Department, March 15, 1879.

Sir.—The department is in receipt of your letter of the 5th ultimo, in the matter of the appeal (663 f.) of Messrs. Naylor & Co., from your assessment of duty at the rate of 2½ cents per pound on certain steel rail ends imported by them per Bulgarian, December 27, 1878. The appraiser reports that the steel in question consists of imperfect ends of steel railway bars, cut off in the process of manufacture, and it appears that they were classified for duty at the rate of 2½ cents per pound, under the provision of for the manufacture of wire and various the process of manufacture, and it appears that they were classified for duty at the rate of 2½ cents per pound, under the provision of the process of manufacture, and it appears that they were classified for duty at the rate of 2½ cents per pound, under the provision of the process of manufacture, and it appears that they were classified for duty at the rate of 2½ cents per pound. 2 % cents per pound, under the provision of Schedule E, Revised Statutes, for "steel in bars.

This steel is not in the form of bars, and the provision for steel in any form not otherwise provided for clearly embraces this class of merchandise, unless it is to be classified by virtue of the similitude clause into rails or billets or bars.

A steel bloom is in no sense a manufacture of steel, except in the same sense that an ingot and a bar and a sheet is a manufacture of steel; a bloom is a more advanced manufacture of steel than an ingot, but less advanced than a billet or a bar or a sheet.

The blooms that I have spoken of heretofore have been blooms that are made by the Bessemer process, but blooms that are made by the broken of the same sense that there was no provision in the statute for iron in any form not otherwise process. The blooms that I have spoken of heretofore have been blooms that are made by the
Bessemer process, but blooms are also made
by hammering—that is, the ingot is heated
to a red heat, and instead of being changed
in the texture by rolling, is changed in texture and size by hammering, but hammering
and rolling in each case produce the same
effect.

Thos. G. Nock. EXTRACT FROM REVISED STATUTES OF UNITED certified statement for a refund of the excess

of duties paid.

You will also cause your practice to conform to your decision.

Yours respectfully, to your decision. Yours respectfully, H. F. French, Assistant Secretary.

Collector of Customs, Boston, Mass

Duty on Steel Blooms.

Duty on Steel Blooms.

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
WASHINGTON, D. C., AUGUSE 27, 1879.

James M. Swank, Esq., 256 South Fourth
street, Philadelphia, Pu.—SIR: In reply to
your letter of the 23d inst., addressed to Mr.
James, of this office, requesting to be furnished with any decision of the department
made in regard to the duty on Bessemer
steel blooms, imported to be rolled into
rails, I inclose a copy of a decision, dated
May 20, 1870, which held that steel blooms
were dutiable at the rate of 45 per cent. ad
valorem, as manufactures of steel not otherwise provided for. The uses to which such wise provided for. The uses to which such blooms may be put, subsequent to their importation, would not seem to affect the rate of duty thereon. Very respectfully, (Signed) H. F. French, Assis. Sec.

(Received September 18, 1879.) (No date.)

TREASURY DEPARTMENT, WASHINGTON, D. C.

Collector of Customs, Philadelphia, Pa.: The department is in receipt of your letter of the oth inst., reporting upon the appeal 3051 of E. Samuels & Co., from your assessment of duty at the rate of 45 per cent. ad valorem on certain steel blooms imported per steamer Illinois, August, 1879.

The appellants claim that the merchan-(Continued on page 14.)

The Iron Age

Metallurgical Review.

New York, Thursday, November 6, 1879.

. Publisher and Proprietor DAVID WILLIAMS AMES C. FAYLES . - Editor. Business Manager JOHN S. KING

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hicago and Pittsburgh Hardware and Metal Thirty-ninth Page .- Boston and St. Louis Hardware and Metal Prices.

Prince Bismarck's visit to Vienna appears to have caused as much wild guessin commercial circles as it has occasioned in politics. One of the main motives of the conference, it is gravely asserted, was to make the preliminary arrangements toward a revival of the old German tariff union. the Zollverein, which is to embrace the Austro-Hungarian and the German Empires. It is pointed out by those hoping for a realization of this scheme, that Prince Bismarck after gaining over the manufacturing and agricultural interests of Germany, is now trying to conciliate the mercantile classes. But however the idea may be regarded by many German manufacturers, it is certain that large Austrian industries will strenu ously oppose it. There are rumors afloat. also, that the Prince has just made the first step toward a repetition of the great Napoleon's experiment of uniting France, Germany, Austria and a number of smaller States by the formation of a tariff union. scheme which would aim a serious blow at England, although its supporters, for instance, the Nord Deutsche All- of the chance to import anything for which

tion. It is curious to note the utter disregard of obstacles which these tariff schemes display. There are also rumors of a project started by an eminent French paper, the Economiste Française, which aims at a coalition of Belgium, France, Italy, Switzerland and Holland, forming a kind of Latin tariff union. The bonds of a common language, common coin, &c., which are largely relied upon to effect a harmonious co-operation, are likely to prove weak against the opposition of many and large interests which would be seriously crippled in each of as those which seem to agitate some of our European friends, are very unlikely to obtain the sanction of the people which they seek to attach by closer commercial ties, and therefore little weight should be attached to rumors which might be thought to affect American interests indirectly.

The Steel Blooms Controversy.

We print this week a quantity of inter esting and valuable matter relating to the recent decision of Assistant Secretary French, of the Treasury Department, rela tive to the classification of steel blooms under the tariff. As will be noticed, we give both sides very fully. The matter submitted by the importers, through their counsel, to the Treasury Department during the consideration of the subject, is very full and complete, and gives a synopsis of the literature of the controversy for some years. Following this we give the views of several leading manufacturers of Bessemer and crucible steel respecting the law, its interpretation by the Treasury Department, and the effects which are likely to follow Judge French's ruling. The views of such importers as have favored us with communications are also given. The subject is thus com pletely presented, and the reader will be able to form an intelligent opinion, however slight his previous acquaintance with the facts of the case. Our own views on the subject are not ma

terially changed since last week. While we cannot see that the consequences of the Treasury ruling are likely to be so serious as the manufacturers believe, we cannot take the importers' view that it is rather favorable than otherwise to the best interests of American industry. We do not see that the makers of Bessemer steel are likely to be materially injured in their rail business, for reasons already given; but supplies from foreign sources will unquestionably affect the demand for blooms of domestic manufacture, and, in view of the increasing use of Bessemer steel for other purposes than rails, will deprive the makers of other kinds of steel of some part of the advantage which it was intended they should enjoy under such clauses of the tariff as were enacted for their protection. We see no warrant for assuming that the definition and classification of blooms made by Judge French in his decision, apply only to blooms of steel made by the pneumatic process. If it had been so stated in the decision, it is not probable the manufacturers would have troubled themselves about it; but it applies with equal propriety to all forms of steel which, by partial manufacture, can be brought within one operation of bars or other finished products. The question before Judge French was, specifically, what duty should be charged on Bessemer rail blooms; but in his decision he speaks of steel blooms in general, and for this reason it assumes an importance which would not otherwise attach to it. We have authority for saying that Mr. Sherman considers this decision in harmony with previous rulings of the department, and that he has no intention of reversing it; and unless its application is Chattanooga. Boston. St. Louis. Cincinvati. limited to Bessemer blooms by a supplement-Louisville. Baltimore. Richmond. Our English ary letter of instructions to collectors of limited to Bessemer blooms by a supplementcustoms, these officials will be warranted in assuming that anything in the shape of ste in blooms is dutiable at 45 per cent. ad valorem, whether it be for rails or razors. and whether made in the converter or the crucible

> There is no doubt that the importers take this view of the case, and are fully prepared to take advantage of the favorable ruling. F. Bailey, of Philadelphia, says on thi point : "As the decision made, confirming previous decisions of the same kind, re fers only to Bessemer steel bloom for railway tire and for making stee railroad bars, no honorable importer would undertake to bring blooms in for any other purpose." This statement is not warranted by the facts. Mr. Henry A. V. Post, in his affidavit submitted to the Treasury Department with the argument of ounsel, says: "We had proposed to manufacture steel rails from most of the ingots we have imported, but we can sell them in the United States to be used for other manufactures of steel, and will do so if we can import them by paying 45 per cent. ad valorem. They are of such size that one rail can be conveniently rolled from them, but we can roll conveniently great many other articles from them. and find abundant market for them for such purposes." This may be a common-sense view of the subject from the importers' standpoint. If. as we assume, any kind of steel dooms can be brought in under Judge French's ruling at 45 per cent ad valorem the importers will certainly avail themselves

chance for profit. We see nothing dishonorable in such a course. The Secretary of the Treasury has the right to interpret the meaning of the revenue laws, and when he decides a point in their favor they cannot be blamed for taking full advantage of it.

We have no doubt that a very large part of the immediate benefit which importers expect to derive from the Treasury decision. will be neutralized by the advance in prices on the other side. The British metal markets are just now peculiarly sensitive to reports from this country, and the countries mentioned. Tariff unions such the prospect of an increased American demand for any kind of iron or steel, sends prices up very rapidly. The fact brought out in the interview of our representative with the President of the Edgar Thompson Steel Works, shows this. When it was re ported in London that the decision of the Treasury was likely to be that blooms were dutiable at 45 per cent., the price of blooms advanced above the price of rails. This is another case added to the already long list in which a reduction of the duty has been followed by an immediate advance in prices abroad. It is evidently the intention of the manufacturers abroad not to let the import-ers have all the benefit. How this will affect importations remains to be seen.

The Holley Converter Bottom.

Since our last issue went to press we have eceived the following letter:

To the Editor of The Iron Age .- DEAR SIR : In a leader in your issue of the 23d inst. you say:
"It is stated that at least one of the Bessemer
mills now in operation has never used the Holley
bottom, and if this be true, it would seem that

The works referred to has obtained in its results the advantage of the Holley bottom. This system is a substitute for the old method, used everywhere a substitute for the out metadu, used everywhere before this patent, of cooling off the vessel and setting the bottom from the inside, which made a delay of many hours. If this was not done the bottom was set by pouring fluid mortar into the hot vessel, which did not stand well and made just hot ressel, which did not stand well and made just as much delay. Holley's system was constructing the bottom so that it could be set by inserting the mortar or "ball stuff" to stop the joint from the outside while the vessel was red hot. This was done in half an hour to an hour, instead of several hours, and made the difference between

several nours, and made the difference between the former small product and the immense pres-ent product.

Holley specified ramming the joint from the out-side. Refractory materials soon after became so improved that they could be plastered on the joint before it was inserted into the vessel, without

before it was inserted into the vesses, without much or any ramming.

The works referred to endeavored to avoid the Holley patent by using a flatter bottom, and in-stead of ramming the joint they substituted a plastic refractory mortar, and depended on the plastic retractory mortar, and depended on the security of the joint by drawing the bottom up tight against the vessel. Their attempted avoid-ance of Mr. Holley's patent is simply preposterous, as frequently the joint leaks and they are com-pelled to ram it.

pelled to ram it.

The system of setting a bottom in a hot vessel, as first practiced by Holley, is used in all works, and if the wording of his patent does not cover all forms of using it, he still has the credit of introducing the system.

ucing the system.

I remain, very truly yours,

JUSTICE.

Concerning the above communication, we would say that nothing in our remarks can be fairly interpreted as showing a desire to detract from the value of Mr. Holley's invention or the credit due him. We may have been wrong in assuming that the gentlemen interested in the contemplated new works propose to work outside of the patents owned by the Bessemer Steel Company, Limited, and that this expectation was based on the supposition that at least one ssemer works was not using the process of making and repairing converter bottoms described in Mr. Holley's patents. This, however, reached us from trustworthy sources, as an answer to the very natural question, How are they to make Bessemer steel except under license? The gentlemen who are named as incorporators of the new company are intelligent and reputable business men, who have not lent their names to a boons scheme: they are not licensees of the reheated and rolled down to a convenient Bessemer Steel Company, Limited, and do not, so far as we can learn, expect to be; and our statement of their views with regard to the practicability of working outside of the patents owned by that company, is probably the correct one. If they are in error on this important point, we have no doubt they will find it out before they have invested their capital in buildings and plant. Meanwhile, Mr. Holley is not likely to suffer in reputation from any course the new company, or any of the old ones, may adopt with regard to their practice in making or repairing vessel bottoms. His record as a chanical engineer was made long ago, and he is still reaping laurels which, to him, seem a perennial growth. "Justice" gives him none too much credit, and far be it from us to undervalue the services he has and he is still reaping laurels which, to him. rendered the world in promoting the progress of the pneumatic steel industry. But news is news, and if it be true, as we understand, that the Pittsburgh gentlemen connected with the new venture expect to make Bessemer steel without taking licenses or paying royalty, it was quite proper for us to say so.

The Coal Operators and Miners' Board of Arbitration, the rules for the formation of which were published in The Iron Age of October 30, has been in session in Pittsburgh, and has fixed the price of mining at 3½ cents per bushel, to last until December 1. This is an advance of one-half cent per

The French ocean cable between Brest and St. Pierre was successfully laid by the gemeine Zeitung, disclaims any such inten- there is a market, and in which there is a Faraday on the 4th inst.

(Continued from page 13.)

THE DUTY ON STEEL BLOOMS.

dise in question is subject to a duty of 30 per cent. ad valorem, under the provision in Schedule E for steel in any form not otherwise provided for.

The question as to the proper rate of duty on steel blooms was passed upon by this department in decision of July 27, 1867, and

May 8, 1868.

The article embraced in these decisions was locomotive tire blooms, which differ from the blooms involved in this appeal only

in shape.

The blooms covered by the present appeal appear to be practically the same description of merchandise as was covered by the former decisions.

The department, therefore, decides that

your assessment of duty at the rate afore-said was correct, and hereby affirms the same. (Signed) H. F. French, Assistant Secretary.

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
WASHINGTON, D. C., Sept. 16, 1879.
Messrs. Morton, Bliss & Co., New York.

GENTLEMEN: This department is in receipt of your letter of the 11th instant, stating that you propose to import for one of your clients a consignment of Bessemer stee hammered and rolled into pieces of 4 to feet long, by from 5 to 7 inches square; and that before giving orders for the merchandise, you desire to know to what rate of

duty it will be subject.
You are informed that it is contrary the practice of this department to decide in advance as to the rate of duty to be assessed on importations.

It appears from your description that the cel will be a partially manufactured article. If the appraiser shall so report, it will be subject to the same rate of duty as if wholly

manufactured, viz., 45 per cent. ad valo-

A copy of a decision upon an appeal, re-lating to steel blooms imported at Philadel-phia, is enclosed for your information; and phia, is enclosed for your information; and if the merchancise to be imported by you is similar to that described in the decision, it will be subject to the rate of duty therein specified. Very respectfully,

(Signed) H. F. French,

Assistant Secretary.

How Manufacturers Regard the Decision. Below we give the views of Messrs. Morrell, Shinn, Corning, Potter, Park, Carnegie, etc.

VIEWS OF HON, DANIEL J. MORRELL.

The following report of an interview with Hon. Daniel J. Morrell, general manager of the Cambria Iron and Steel Company, of Johnstown, Pa., and president of the Amer-ican Iron and Steel Association, will be read with interest:

Reporter.—I should like to know, Mr.

Morrell, if you have any criticism to offer upon the recent decision of the Treasury Department fixing the duty on steel blooms

at 45 per cent. ad valorem.

Mr. Morrell.—I think it is all wrong, and certain to be very injurious. The Bessemer steel blooms brought in under this decision are partially manufactured rails. At 45 per cent. ad valorem the duty will be about one-half of one cent per pound, while rails are charged 1½ cents per pound. The dif-ference in the duty on the two products is \$16.75 per ton. As these blooms can be made into finished rails at a cost of about \$5 per ton, the result will be that great quantities of blooms will be imported to be finished here as rails. It is a serious blow to our iron and steel industries.

R.—Is not the law as it stands obscure or

insymmetrical ?

Mr. M.—I think not. It is true that steel ingots are rated at 21/4 cents per pound, while rails are 11/4 cents per pound, but when this duty upon ingots was imposed Bessemer steel ingots were not known commercially, and it applied to crucible cast steel, which is

and it applied to crucible cast steel, which is a more costly metal. I have never claimed myself that the duty of 2½ cents on steel ingots should be applied to Bessemer blooms.

R.—What are they!

Mr. M.—Ordinarily they are produced in manufacturing steel rails. The steel as cast in its first form is called an ingot, which is reheated and rolled down to a convenient. and cut to p another heat into railroad bars. cut to lengths for one or more rails these pieces are called blooms, but they might be called bars, unfinished rails, or by any other name. You have in the bloom fully eight ninths of the labor and expense of produc-

ing a rail. -Are they not used for other purposes than rails? Mr. M.—They are, but it is well known

that the importations, are for manufacture into rails. The duty on rails is the lowest imposed on any manufacture of steel, and the importer of blooms therefore could not complain if this duty were imposed on his blooms, especially if he proposes to use his blooms for articles of higher cost, and bearanxious to see something else in it he can do so, but that, at least, must be seen, unless blindness is willful.

R.—I observe that Judge French concedes this, but says the rail duty would be pro-hibitory, and should not be adopted unless the demands of the law imperatively require

Mr. M .- A very poor reason. I think. The object of the tariff is not to encour importations, but to afford protection. protective character is strongly marked in the almost invariable advance of duty as the article is advanced in value. The duty on rails does not prohibit their importation; upon the committee, but, being in Philade they are coming in, and Judge French phia, was requested to accompany the commercial phia, was requested to accompany the commercial phianesis and after a hurrier to washington, and after a hurrier to washington. blooms, at an excessively low duty, instead of rails at a duty which the article can bear. Unless the result is an enormously increased was requested by the members of importation, the government will lose revenue, and if there is an enormous increase

government and the country must, in the

end, suffer by it.

R.—Is there not a rail famine? Can the

ountry supply all the steel rails needed?

Mr. M.—The revival of demand was unexpected and manufacturers were not prepared for it. Under a prohibitory duty we could overtake the demand within a year, could overtake the demand within a year, and reduce prices, as heretofore, through home competition. Meantime, if steel rails could not be had, iron rails would be put down, very much to the benefit of our long-suffering iron trade. The buyers of steel rails had everything their own way for a long time; prices went so low that two of the eleven Bessemer works became bankrupt, and now that the tide has turned, those who have worried through deserve those who have worried through deserve some consideration. All of the works are now in operation. However, the worst ef-fects of this Treasury ruling will not fall upon the manufacturers of Bessemer steel.

then the manufacturers of Besselher steel. R.—Who else are affected by it? Mr. M.—The manufacturers of crucible and open-hearth cast steel. The duty of $2\frac{1}{2}$ and open hearth cast steel. The duty of 24 cents per pound on ingots fairly protects them, but we shall have presently something not known heretofore—importations of cast steel blooms. Parties who are always on the watch to evade duties will have steel cast in large ingots and then hammered a little, and will bring it in at 45 per cent. ad valo-rem. Our cast steel makers cannot stand up under that competition. While on this subject I may as well mention another decision of the Treasury Department which seems to illustrate the spirit in which our tariff laws are now administered.

R.—I shall be glad to have you do so.

Mr. M.—Steel in coils, and steel wire not less than ¼ inch in diameter, valued at 7 cents or less, are dutiable at 2¼ cents per pound. Smaller wire, according to size, is charged 2½ cents per pound and upward and 20 per cent. ad valorem. There is a manufacture of steel known as wire rods rolled for the purpose of being drawn into wire. It is coiled. The Treasury Departwire. It is coiled. The Treasury Department has decided that it is not wire, but it has also decided that it is not steel in coils, and that it is not partially manufactured wire, and admits it at 30 per cent. ad valorem, as an article not otherwise provided for. It will come in at about one-half a cent a pound, which is about one-third of the duty on iron rounds of the same size. Everybody who makes this article, everybody who buys and sells it, and everybody who consumes it knows that it is steel in coils, but the officials of the Treasury Department have decided otherwise.

R .- What effect has this decision had, if

Mr. M.-It is so much cheaper to import rods than to manufacture them, that large quantities have been and will continue to be rdered from abroad. It is another damaging blow to the iron and steel trade of the United States. The wire-rod business is a large industry of this country and ought to be encouraged. But the Treasury Department appears to aim at its destruction.

R.—What is it proposed to do about these decisions? Will they be carried into the

Mr. M .- I do not know how this is to be

done. The parties who inade their mock claim before a friendly tribunal, to have their steel blooms admitted at 30 per cent. ad valorem, are very well satisfied with the decision fixing the duty at 45 per cent., and will not resort to the courts, and of course the government will not. There seems to be no remedy except an appeal to Congress, and by the time we have one matter of this sort straightened up there will be a dozen more. These decisions have taught parties who are on the watch to evade the payment of duties that all they need to do is to bring in a partially finished article under a new name, or a name not specially mentioned in the schedule of dutiable goods. It is smuggling made easy. When an article falls into an ad valorem rate of duty the mischief is

not ended, as valuations are never honest when, as in most cases, the nominal im-porter is simply the agent of a foreign manufacturer.

R.—What would you recommend as the

best course to pursue?

Mr. M.—A thorough revision of the tariff by a commission composed of experts representing all American interests and industries. Tinkering is always had, and recent experience has shown that the Committee of Ways and Means of the House of Repre-sentatives cannot frame a general law. It sentatives cannot frame a general law. has not the time, nor the requisite infetion, nor the means of obtaining it. members are constantly changing, and some of them are mere politicians, without any interest in or proper regard for the industries of the country. I think we should have such a commission to act as soon as possible, and I also favor a new administrative department composed of bureaus of agriculture, manufactures and commerce, to be called "The Department of Industry," with a Cabinet officer as its official head as Secre-tary of Industry. Such a department properly organized would have a beneficial influence upon legislation, and would tend to withdraw business questions out of the domain of politics and sattle them upon business principles.

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MR. WM. P. SHINN'S VIEWS.

St. Louis, November 1, 1879. To the Editor of The Iron Age. - DEAR SIR: Regarding the recent ruling of the Treasury Department upon the subject of the duty on steel blooms, I have read Assistant Secretary French's decision as embodied in a letter to the Collector of Customs at Philadelphia, and am at a loss whether to regard as most surprising the result arrived at in the decision, or the ground upon which such decision is made

It was unfortunate that the committee of desserver steel manufacturers who argued the appeal before Secretary French were prepared for doing so. I was not upon the committee, but, being in consultation (time for which had to be taken after the hour for argument had arrived), mittee to present the case on behalf of the

the injury to business will be such that the I am free to say, therefore, that the case

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of the manufacturers was presented with-out sufficient consideration and preparation, and without having before them the previ-ous decisions of the department. The ground taken by the manufacturers was as follows:

1. That steel blooms were not "manufac-tures of steel," and therefore that they did not come under the first clause of Section 1012 of the Revised Statutes, which provides steel shall be a component part, not other-wise previded for, 45 per cent. ad valorem," that that steel blooms were "articles of steel partially manufactured not otherwise pro-wided for," which the last clause of Section TOIZ provides "shall pay the same rate of duty as if wholly manufactured."

Webster defines "manufactures" to be

Webster defines "manufactures" to be
"Anything made from raw materials, by
the hand, by machinery or by art, as cloths,
iron uteards, shees, cabinet ware, saddlery,
and the like;" and he likewise defines the
verb "manufacture": "To make or fabricate from raw materials by the hand, by
art or machinery, and work into forms conmrt or machinery, and work into forms conremeint for use, as to manufacture cloths,
rails or glass;" second: "To work, as raw
rmaterials into suitable forms for use, as to
rmanufacture wool, cotton, silk or iron." He
ffurther defines a manufacturer as "One
who manufactures; a person engaged in the
business of working raw materials into wares
suitable for use."

Now, the whole controversy is embraced
in the question whather or not a steel bloom

Now, the whole controversy is embraced in the question whether or not a steel bloom is a "manufacture of steel," or whether it is an "article of steel partially manufactured"? It was claimed upon the other side that steel blooms were analogous, as manufactures, to pig iron; that they were articles of commerce known to the trade, made and

of commerce known to the trade, made and sold as steel blooms.

We argued, upon the other hand, that pig iron is the final result of a process, and that after pig iron is obtained it is not placed in another blast furnace for the purpose of making other or smaller pig iron, but that, in its further manufacture its goarthrough as processors. facture, it goes through a process entirely different from that by which it was made; that, on the contrary, a steel bloom is an article produced by arresting at a certain stage the process of its manufacture; that stage the process of its manufacture; that the only use to which a steel bloom can be aput is to continue upon it the process is a continuation of the process by which the steel blooms were made, whether by hammering or by rolling.

We further argued that if this was not the case, that then the case is covered pig iron, facture, i

not the case, that then the case is covered by Section 908 of the Revised Statutes, which

provides as follows:

"There shall be levied, collected and paid on each and every non-enumerated article which bears a similitude, either in material, en each and every non-enumerated article which bears a similitude, either in material, quantity, texture or the use to which it may be applied to any article enumerated in this title, as chargeable with duty, the same rate of duty which is levied and charged on the enumerated article which it most resembles in any of the particulars before mentioned," &c.; that if steel blooms are not "articles of steel partially manufactured" they are then articles of steel not enumerated, and that they bear a "similitude in material, quality and the use to which they may be applied" to steel ingots, because a steel ingot of the same size as a steel bloom would be ef substantially the same material and quality, and would be capable of being put to precisely the same use; and that, therefore, the duty on blooms should be the same as the duty on ingots.

as the duty on ingots.

The importers claimed, on the other hand, that steel blooms were covered by Section 1041, which provides that "steel in any form, not otherwise provided for, 30 per cent ed veloces."

cent. ad valorem."
Secretary French says, in his letter above referred to, "Steel blooms for railway bars and for locomotive tires are made of given dimensions and weight, and are intended for a special purpose, and are not suited for any other, although they might be rolled and hammered for the manufacture of smaller articles for which the quality of the metal

imperatively require it. The intent of the law of 1864 regulating the duties on iron and steel, seems to have been to impose a duty of from 30 to 50 per

cent. upon the coarser articles of steel, &c.
"The decisions of the department from 1867 to the present time have regarded steel blooms as subject to the duty imposed upon manufactures of steel, and upon the faith of these decisions parties have entered into large business transactions; and the department is still of the opinion that this classification is correct, and therefore adheres to such decision."

Secretary French disposes of the simili-tude clause by stating that a bloom is not a non-enumerated article, because the provi-sion "for manufactures of steel and steel in any form not otherwise provided for," is a sufficient enumeration to destroy the operation of the similitade clause; but he might have ascertained the "evident intention of the framers of the tariff from the similitude clause to be that an article not enumerated, which was practically the same thing as an enumerated article, should not be allowed to escape the duty attached to the enumeration, and such an interpretation would have been much less strained than would have been much less strained than that in which he finds the intention of the law to be to impose a duty of from 30 to 50 per cent. upon the coarser articles of steel, because upon all of those articles which are enumerated a specific duty is provided for

of the manufacturers was presented with-out sufficient consideration and preparation, and without having before them the previ-ous decisions of the department.

The ground taken by the manufacturers

subject strongly suggests this view of the case. Second, that it is the duty of the de-partment to decide in all cases in favor of that decision which will produce the most revenue to the department, and that view seems to be particularly suggested in his expression, that to make steel blooms dutiable as railway bars or locomotive tires previous-ly manufactured, "would be prohibitory, and should not be adopted unless the de-

mands of the law imperatively require it."

Now, the whole intent and aim of the existing tariff is, as plainly as can be indicated, to furnish protection to producers of certain articles in this country, and among those articles are railway bars and locomotive tires, and it was certainly as far as pos-sible from the intention of the framers of the tariff that articles of steel which were midway between ingots and railway bars should be allowed to come in at a duty of one-fifth

be allowed to come in at a duty of one-fifth that on ingots and one-third that on rails.

When we recur to the original decision on these steel blooms—that of July 27, 1867—upon which all the others appear to hang, we find the following language used, referring to so-called steel blooms imported into New York:

"An investigation of the matter shows that the articles in question were examined.

that the articles in question were examined in store about the 12th of March last, and that the appraiser returned them as 'steel in any form not otherwise provided for,' and duty at the rate of 30 per cent. was accordingly assessed thereon. Subsequently, however, the appraiser renewed his return in the premises and classified them as manufactures of steel or articles of steel partially manufactured, and the rate of duty was thereupon

changed from 30 to 45 per cent. ad valorem.

'The question, therefore, is one of fact, and as the appraiser states that he is convinced that the articles are properly classified as manufactures of steel or articles of steel previously manufactured, your assessment of duty thereon at 45 per cent. ad valorem was correct."

was correct."

Now, this decision is most remarkable from
the fact that it decides nothing. It leaves
the question which was then, and is now, in

in which, on the part of the manufacturers, claim is made that Section 1012 makes a great distinction between manufactures of steel, and an article of steel partially manufactured, and we claim that steel blooms are of the latter class, and are not of the for-

mer.

The subsequent decisions of May 8, 1868, and May 20, 1870, only confirm this original decision; and the decision of Secretary French, contained in a letter to the Collector of Customs, of Philadelphia, received September 18, 1879, simply confirms the decisions of September, 1867, and May 2, 1868

May 8, 1868. Secretary French himself, in a letter dated Secretary French himself, in a letter dated September 16, 1879, to Mossrs. Morton, Bliss & Co., referring to a "consignment of Bessemer steel, hammered and rolled into pieces of 4 to 5 feet long by 5 to 7 inches square," stated that "It appears from your description that the steel will be a partially manufactured article. If the appraiser shall so report, it will be subject to the same rate of duty as if wholly manufactured, viz., 45 per cent. ad valorem."

raticles for which the quality of the metal may be suitable.

"In this view it might be held that they are railway bars or locomotive tires, partially manufactured and subject to a duty of a M and 3 cents per pound respectively; but this duty would be prohibitory and should anot be adopted unless the demands of the law decision, but has given in some cases and decision, but has given in some cases and

flood of light upon this steel bloom ques-tion, and of which I was not aware until yesterday.

These pieces of steel which in this country and by the Bessemer steel manufac-turers are termed "steel blooms," were, at the time the tariff was enacted, termed by the time the tarin was enacted, termed by the manufacturers in Great Britain, and still are so called by them, "cogged ingots," and, whether hammered or rolled, in most of the English Bessemer works and all the crucible works, both in this country and

irst work under the hammer or in the rolls is termed a "cogged ingot."

The hammer which is used for the purpose is termed a "cogging-hammer," and the mill which is used in rolling them is termed a "cogging-mill," and these very blooms were, when the tariff was framed, included in the word "ingots," as stated in section 1038 of the Revised Statutes.

The onestion of any party having entered

The question of any party having entered The question of any party naving entered into large business transactions in consequence of the decisions of the department above referred to, is not one which should have any weight in determining its decisions. If they have been misled by the department decisions into entering into transactions which they would not have entered into but enumerated a specific duty is provided for and collected, in some cases with an ad valorem duty in addition.

The animus of this decision seems to have been—first, that the former decisions of the department upon the subject of steel blooms, affirmed as they have been by Assistant Secretary French himself, were "official utter-"official utter-"offi

LETTER FROM MR. ERASTUS CORNING

TROY, N. Y., November 4, 1879. To the Editor of the Iron Age.—DEAR SIR The recent decision of the Assistant Secre-The recent decision of the Assistant Secretary of the Treasury is a severe blow to the steel interests of this country, and consequently favorable to the operations of our English friends. If Judge French had wanted to injure home interests, cripple American manufacturers of steel, and strike a blow against the interests of labor, he could not have found an easier or more effective way. fective way.

I think his decision is wrong, and not in

accord with a fair commercial interpretation of the statute. Blooms are not mentioned in the schedule of dutiable articles, but ingots and bars are. The bloom is simply an intermediate stage of manufacture. The ingot is first rolled into the bloom, and the bloom into the bar or billet; hence the nat-ural inference is that, while not named in this connection, inferentially the bloom should be treated in the enumeration of "steel in ingots, blooms, bars," &c. This is its natural place, commercially and justly, taking into consideration what constitutes a

I am unable to trace any significance placing blooms under the section of "all manufactures of steel," &c., when, in another section, is specified "steel in ingots, bars, coils," &c., and in this family the bloom is a natural, constituent member, and, being non-enumerated, should be classed and assessed as the enumerated articles of this latter section. While a bloom is not an this latter section. While a bloom is not an ingot in its natural relation, it is its product; and, while it is not a bar in its commercial application, bars are produced from the bloom and the billet. Of course steel may be cast in molds of the ordinary bloom size, and is so cast, and when so cast the product is still an ingot, but in the larger commercial application they are rolled from larger ingots. It seems to me that if the different enumerations of steel had been before our legislators when steel had been before our legislators when making the tariff, the article bloom would have had its natural place and been includ-ed in its legitimate family connection as steel in ingots, blooms, bars, &c.

steel in ingots, blooms, bars, &c.

If I am right in this, it seems as if the Treasury Department had erred in not giving a proper construction to the intent, and had erroneously placed the non-enumerated article "blooms" in a family that, with the other clearly expressed section, it has no prepared as a significant relation to the section.

the other clearly expressed section, it has no proper or significant relation to. I am unwilling to believe the Assistant-Secretary of the Treasury would intention-ally construe any act to the injury and prejudice of American manufacturers and in favor and support of foreign makers, but it seems to me his construction of the statute is wrong, and will in its operation lead to just such a condition of affairs.

I should have responded to yours of the 28th ult. at an earlier day but for the pressure of other engagements.

Very truly, yours, ERASTUS CORNING, Pres't.

LETTER FROM MR. O. W. POTTER.

CHICAGO, November 7, 1870. To the Editor of the Iron Age .- DEAR SIR : I have your letter of October 28th, in which you ask my views on the decision of Judge French, Assistant Secretary of the Treasury, in the matter of his affirming a former decision as to the duty to be paid on steel blooms, whereby the duty is practi-cally reduced \$16 per ton from that which American manufacturers of steel believe Congress had provided in the present tariff

not made a most unjust and unwarranted decision, then Judge French has a conscience that will not do its whole duty by him, and my only hope is that the Republican administration may not have much

cents per pound or less, shall pay 21/4 cents

of steel rails (and, remember, it is for steel rails this steel in question has been imported, and it is on this article the ported, and it is on this article the decision was made), then steel rails are provided for in the tariff at 1% cents per pound, which is the last and finished stage in the manufacture of this steel ingot. The bloom in question is a stage in crucible works, both in this country and England, an ingot which has received its ingot. The bloom in question is a stage in first work under the hammer or in the rolls in termed a "cogged ingot." stage in shape that the ingot must be made to assume before the railway bar can be made. Still, this man decides it is steel not partially manufactured, and may come in under 45 per cent. ad valorem. At present prices in England for blooms, say \$25 per ton, the duty is \$11.25 a ton, while ingots are subject to 2 ½ cents a pound, and railway bars 1 ½ cents a pound, or \$28 per gross ton. Judge French probably satisfies himself of the justness of his decision in part on the following clause, to wit: "All manufactures of steel or of which steel shall

the same rate of duty as if wholly manufac-

has found the way. It is now Mr. Sher-man's turn. If, after his speeches in Ohio and New York, he can go back to his office and, after careful consideration of all the bearings this decision has on the future of bearings this decision has on the future of this country, concur in the decision of Judge French, then it is the duty of the capital and labor of this country to join hands in the Presidential Campaign of 1880, and either have free trade or a tariff that neither English gold or American perfidy

neither English gold or American perfidy can disturb.

Under the present tariff law and for the purpose of a development of the manufacture of these blooms in question, American capital has been put in mines, furnaces, converting works and mills, to the amount of fully \$50,000,000. For the past five years every dollar of this money has been in jeopardy from the terrible condition of our country, and every man, woman and child, without exception, who has been employed in or around these iron mines, coal mines, furnaces and mills has suffered physically and mentally, but have borne this suffering and mentally, but have borne this suffering patiently in the hope of better things. And patiently in the hope of better things. And here, within 90 days of a change for the better, and with the hope for work and pay that will provide for sickness and old age, to say nothing of the thieving from them of the most inhuman kind by savings banks failures, both labor and capital have had aimed at them a blow the force of which for the moment targets them. But six they will not fall. We staggers them. But, sir, they will not fall. We have in this country now, and have had for months, foreign money, and foreign brains to direct its use, and the first fruits are be-fore us. In their magnitude is our safety, for the reason that it is clear they mean to make a clean sweep if they do anything; and as the Republican party take to them-selves the credit of having freed the slave labor of the South, let them look to it they do not enslave the white labor of the North, or they will need more than the wisdom of or they will need more than the wisdom of Blaine, the philosophy of Sherman, or the plain talk of Chandler to explain satisfac-torily to this people why they did it. The free trade and tariff questions have been foot-balls long enough. In their present

attitude, they endanger every dollar in manufactures and the liberty of every employee, and to my mind this people now want some stability of government if it is to be Republican. Then let the principles that underlie the Republican party be maintained to the letter, and no recreant or ignorant official jeopardize an industry that will give employment, comfort and happiness, in 1879, to 300,000 souls, and raise out of the ground and put into manufactured articles of iron and steel the value of \$122,000,000, all of which is so much added to our wealth as a nation, as much as though it were in grain,

nation, as much as though it were in grain, hogs or cattle.

Our iron industry is assailed sharply by free-trade papers and Republican papers with free-trade principles, as to why we do not manufacture as cheaply as abroad, and infer that we should or die. And yet they will go into ecstasies over this free country and the American flag, and invite the whole world to come here and be happy. We have under this theory a good many people in of duty as if wholly manufactured, viz., 45 per cent. ad valorem."

Now, how could Secretary French know that the duty upon the wholly manufactured article, into which these pieces of steel are to be made, would be subject to a duty of 15 per cent. ad valorem? If those manufactured articles were steel railway bars, they would be subject to a duty of 11 cents per pound (Section 1013, Revised Statutes) and if they were steel bars, sheets or coils, they would be subject to a duty of 21 cents per pound (Section 1038, Revised Statutes).

American manufacturers of steel believe Congress had provided in the present tariff law.

From such a standpoint, and one which I most certainly take, you might readily infer that my views as to Judge French's decision would be extreme. If he can by any possiput them selves in all that they claim for stulify themselves in all that they claim for actions that will not do its whole duty by him, and my only hope is that the Repound (Section 1038, Revised Statutes). what Republicanism means when the name is used; for protection to American industry means that which will add to the comfort Now, with this law to govern him, steel and happiness of every person living under ingots paying 2½ cents per pound duty, which is the first stage in the manufacture farmer, ore miner or maker of steel farmer, ore miner or maker of steblooms, Yours sincerely, O. W. POTTER.

which he claimed would have a very disas-trous effect upon the growing crucible and ber of the Committee of Ways and Means en-hearth steel industry of this country. The tariff as now interpreted will permit an extensive importation of crucible and openhearth steel in the shape of blooms, of which expressly considerable quantities are now about to be of steel. considerable quantities are now about to be imported. The ruling makes no distinction between these higher grades of steel and that used for the manufacture of Bessemer steel rails, and there is every reason to expect that, as it will be very profitable to import them, our domestic manufacture will suffer seriously. The effect of the decision will be to stop a further expansion of a branch of manufacture which has been designed and workmen, of that protection the will be to stop a further expansion of a branch of manufacture which has been developing very rapidly in the last few years, and, if no check is put on importations, the works now engaged in the manufacture of open-hearth steel will find themselves composed in the manufacture of open-hearth steel will find themselves composed in steel manufacturing, and pelled to curtail production in the melting the many who have become bankrupt in department, and to restrict themselves to rolling steel blooms, which are available for the strong prejudice in favor of the foreign

the same rate of duty as if wholly manufactured."

Now, this bloom is not "not otherwise provided for;" it is a partially manufactured railway bar, and should pay the same rate of duty, by the above clause, as the bar itself. In every conceivable way the law has tried to prevent subterfuges and misconstructions; but where there is a will there is a way, and it is clear Mr. French has the will, and, so far as he is concerned, has found the way. It is now Mr. Sherman's turn. If, after his speeches in Ohio and New York, he can go back to his office and, after careful consideration of all the Judge French's decision, if sustained, would, in the quality of rails delivered, it would be a difficult matter to decide whether inferi-ority of the rails was due to poor quality of ority of the rails was due to poor quality of the blooms or lack of skill in rolling them. He would not be surprised if the Depart-ment would soon be forced by extensive frauds practiced under the provisions of the tariff, as now interpreted, to abandon the position now held. A point which he thought had escaped the attention of those interested was that, except in a few old-fashioned mills, steel blooms were not now being made in England, as ingots were rolled direct into rails without reheating.

> VIEWS OF PROMINENT PITTSBURGH WANDFAC-TURERS.

> Mr. James Park, Jr., in an interview with a representative of *The Iron Age*, speaks of Secretary French's decision in the following

The recent decision of the Treasury Department relating to "steel blooms"—well known at the time of the adoption of the present tariff as "cogged ingots," is not at present tariff as "cogged ingots," is not at all complimentary to the intelligence of the Committee of Ways and Means, who, with the Hon. Mr. Morrill, of Maine, at its head, carefully deliberated upon and adjusted the present tariff laws. A committee composed present tariff laws. A commutee composed as it was, of able men, did not adopt the present rates of duty on ingots, bars, coils, sheets, &c., and intend that these rates should be disturbed or nullified by the rates should be disturbed or nullified by the adoption of the paragraph quoted by the Hon. Assistant Secretary of the Treasury, which paragraph was intended to cover the thousand and one "manufactures of steel, or of which steel shall be a component part," whether finished or partially manufactured. That this paragraph refers specifically and only to manufactures of steel, no fair and candid person understanding the subject will dispute.

Q.—What are your ideas of the proper in terpretation of the law as it stands?

terpretation of the law as it stands?

A.—When the officials of the Treasury Department concluded to adopt the provision in schedule E, as quoted by Judge French, as that from or by which to fix the rate of duty on the so-called steel blooms, and interpret the word "articles," to mean raw or partially manufactured steel, something other than manufactures of steel, why did they overlook the words "shall pay the same rate of duty as if wholly manufactured" steel, the duty on which is clearly defined in the same schedule E? If decisions of the nature of that recently issued are to be repeated or continued, what

issued are to be repeated or continued, what dependence can be placed in our tariff laws? No court or Treasury official can satisfy a jury, after all the evidence is in, that the paragraph refers to anything else than "manufactures of steel." It was carefully considered and adopted, not for the purpose considered and adopted, not for the purpose of disturbing the paragraph relating to "steel in ingots, bars, coils, sheets," &c., but to cover "all manufactures of steel, or of which steel shall be a component part, and all articles of steel partially manufactured, or of which steel shall be a component part, not otherwise provided for," fixing the same rate of duty on these partially manufactured articles as that named for "wholly manufactured." For a clearer understanding of the subject, let us look at the true definition of the word "manufactures." true definition of the word "manufactures."
Webster gives us this, and every one who would be subject to a duty of 1½ cents per pound (Section 1013, Revised Statutes) and if they were steel bars, sheets or coils, they would be subject to a duty of 2½ cents per pound (Section 1013, Revised Statutes).

It will be seen, therefore, from a comparison of decisions of the department, that it has simply adhered to its original decision of 45 per cent. ad valorem on blooms of every kind; but that in that original decision the department did not definitely classify them, so that they would be legally subject to such duty, and that in subsequent decision, but has given in some cases on tirely different grounds for such readifficulty in the control of the word "manufactures of steel," or of which steel shall be a component part, not otherwise provided for, 45 per cont. ad valorem, but all articles of steel shall be a component part, not otherwise provided for, 45 per cont. ad valorem, but all articles of steel shall be a component part, not otherwise provided for, 45 per cont. ad valorem, but all articles of steel shall be a component part, not otherwise provided for, shall pay the same rate of duty and "from those given in the original decision, which must continue to be treated as an "official utterance."

But there is another fact which throws a flood of light upon this steel bloom question. And of which I was not not rate of the subject to a duty of 2½ cents per pound or less, shall pay 2½ cents per pound called "manufactures of steel," or can it by any fair interpretation be covered by the classification or provision quoted by the Sec-retary without being charged with the duty provided and fixed for "wholly manufac-tured steel"? The paragraph covering "all manufactures of steel" is clear and easily understood. It was considered important to understood. It was considered important to embrace in the specifications applying to steel a paragraph covering the numerous ar-ticles of "manufacture," such as are com-MR. A. B. PARKER'S VIEWS.

Mr. A. B. Parker, when asked for an expression of his views on the subject, was strong in his condemnation of the decision, which he claimed would have a very disc. ever thought the paragraph would be twisted to such an extent as to be made to apply to raw material, when it was carefully framed expressly and only to cover "manufactures

department upon the subject of steel blooms, affirmed as they have been by Assistant Secretary French himself, were "official utterates," and therefore "unanswerable."

The frequency with which Judge French refers to the previous decisions upon this "with a reporter of the department, as been done heretofore; dear of such transactions having but the fact of such transactions having but the fact of such transactions having been entered into furnishes no adequate per cent. advalorem is final, and yet the facture.

Seen I find the word blooms, which are available for a very great variety of articles of manufactions of the country has good reason to feel whole steel-making industries of this country has good reason to feel by "All articles of steel partially manufactive," and the fact of such transactions having been entered into furnishes no adequate per cent. advalorem is final, and yet the facture.

MR. A. CARNEGIE'S OPINION.

MR. A. CARNEGIE'S OPINION.

Mr. Andrew Carnegie, in conversation true, or of which steel is a component production of a very great variety of articles of manufactive it is "not otherwise provided for," and 45 facture.

MR. A. CARNEGIE'S OPINION.

MR. A. CARNEGIE'S OPINION.

Mr. Andrew Carnegie, in conversation with a reporter of The Iron Age, stated that in quality with the best made abroad, as

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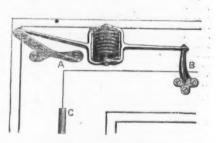
remains at rest.

2. From this point the spring works equally well in either direction, and if the door is opened backward it is firmly retained against the wall.

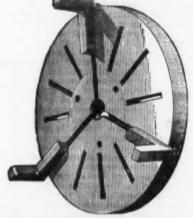
3. It is impossible to strain the spring, as there is not more than 40 per cent. of the elasticity of it used.

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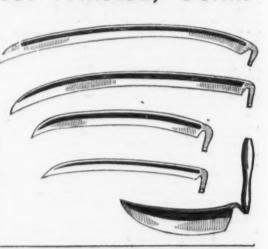
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SPRINGFIELD, VERMONT.

well as furnishing it at prices considerably below what they paid when our tariff were at their lowest figures. when our rates of

Q.—Do you think the assumption war ranted that the law has been interpreted in the interest of a large revenue from imports of blooms; and what, in your judg-ment, are the prospects of securing a re-consideration of the decision?

A.—That is a delicate question. It is well known and universally conceded, that honorable men holding such positions as Secretaries Sherman and French are always dis-posed and willing to do right, no matter who may suffer by their decisions. This is expected of them, and they will cheerfully reconsider, as they have done before, their own decisions and the decisions of their pre-decessors, when made to see they have made decessors, when made a serious mistake damaging to an important industry—one that, if allowed to have that protection the law gives it, will grow to gigantic proportions. If the Secretary of the Treasury is under the impression his decision does not disturb and nullify the tariff law, so far as it relates to steel, it will not be long before the fact—that his decision will have that effect-is brought to his attention, as the foreign manufacturers will turn all their make of steel ingots needed here into so-called steel blooms, by heating and giving them but two passes through their cogging mills or under their cogging hammers, all that is required to convert steel ingots into so-called steel blooms.

Q.—Is the term "steel bloom" warranted by general commercial usage?

A.—All English steel manufacturers and their skilled workmen denominate the so-called steel blooms "cogged ingots," and all who are familiar with the manufacture of steel should allow the original designation— that which prevailed when the tariff laws were adopted—to continue in use. The word "bloom" as applied to steel is a misnomer. No dictionary definition will war-rant its use. The rolling mills in England used for reducing ingots are called "cogging mills." Who engaged in manufacturing steel has not heard of Ramsbottom's Cogging Mills, the product of which are cogged ingots, known as such, and by no other name, by every steel manufacturer and steel Just think of the disturbance in the tariff classification, so far as it relates to steel, this unwise decision of the secretary will cause. He may not fully comprehend it, but it will not be long before all engaged in the manufacture of steel and those in their employ will not only com . ehend, but se

employ will not only com renead, but severely feel it.

Q.—How will the decision affect the interests of labor in this country?

A.—It is not to be supposed that those who have invested large sums of money and credit in buildings, furnaces, machinery and the hard who have structed through the stock, and who have struggled through the trying years of the panic, will give up be-cause the mistake of the Secretary of the cause the mistake of the Secretary of the Treasury will transfer a large amount of trade from this to the other side of the Atlantic. They will "fight it out if it takes all summer;" but in doing so the time may come, and that, too, sooner than expected, when the skilled workmen in the steel establishments of this country will have the lishments of this country will have to submit to wages corresponding with what are re-ceived by the now distressed employees of England and other foreign countries. The crucible steel manufacturers and their skilled workmen, under this unjust and un-wise decision, will be the greatest sufferers.

Mr. T. M. Carnegie, president of the Edgar Thomson Steel Works, is of the opinion that the decision will work greater injury to the crucible steel manufacturers than to the Bessemer works. There would be little pro-Bessemer works. There would be fitted pro-fit in importing Bessemer blooms, especially if they advance on the other side, as they undoubtedly will do, in fact have done al-ready, while there would be a large profit in importing blooms or ingots that might be in importing blooms or ingots that might be made into the highest grade of tool steel—such as if regularly admitted under the toolsteel duty, would have to pay 3½ cents per pound and 10 per cent. This steel would sell at 12 cents per pound, while Bessemer rails now sell at, say, \$60 per ton, which is lower than bar iron is now selling in this country. Mr. Carnegie stated a fact that is of considerable interest. Some six or eight weeks ago it seemed to be well understood, in certain circles, that this decision derstood, in certain circles, that this decision derstood, in certain circles, that this decision would be made, and steel blooms or ingots advanced in price in the London market above the price of steel rails. This was the result of the fact that the duty on blooms was sult of the fact that the duty on blooms was 45 per cent., while on rails it was over 100 per cent., and, therefore, the blooms could be brought in and rolled from the imported be brought in and rolled from the imported metal cheper than the rails could be immetal cheper than the rails could be imported

Views of Philadelphia Importers. Below we print letters from Messrs. J. F. Bailey and Edward Samuels:

LETTER FROM J. F. BAILEY.

these con-and ole in rany oved

steel, e dif ed by which work, any f any an be

PHILADELPHIA, NOV. 1, 1870 To the Editor of The Iron Age.—So much having been said about the recent decision of Judge French on Bessemer steel blooms which is calculated to deceive the reading which is calculated to deceive the resulting public, I wish to say a few words in behalf of those reflected upon, and especially to note the publications in the Pittsburgh Commercial Gazetts and the Pittsburgh Daily mercial Gazette and the riversa.

Dispatch under date of 27th instant.

Nine

The first-named paper says: "Nine-tenths of the labor in manufacture of steel is expended in reducing the metal to the form known as blooms." This is not sus-tained by the cost-sheet of any Bessemer steel rail works in this country, and to con-firm this perhaps some one of the Bessemer steel rail makers will show the gentlemen their cost-sheet for this grade of work, as it is not my purpose to make public the items showing the cost of making Bessemer steel ingots and blooms for making rails. This same paper, over the signature of "Protection" aver "This dearline of "Protection". tion," says: "This decision is more serious than is generally supposed. It is a direct stab at protection to American industry. Under this decision steel blooms can be imported and made into merchant bars for less than common bar iron is being sold at hero."

Let us see how near "Protection" is correct. First, as the decision made, confirm-tention of our home Bessemer steel works to punish or break down the market of our pig fers only to Bessemer steel blooms for rail-

way tire and for making steel railroad bars, no honorable importer would undertake to bring blooms in for any other purpose. The present price for Bessemer steel blooms from foreign manufacturers is 130/, f. o. b., in foreign ports; to bring them to any one of the consumers of old foreign iron rails to break our pig iron market; but to try and supply that which Bessemer steel works of this country cannot supply, namely, the demand, and that without injury to any one. present price for Bessemer steel blooms from foreign manufacturers is 130/, f. o. b., in foreign ports; to bring them to any one of our ports and pay the 45 per cent. duty would bring the cost of blooms to about \$50 per ton. This is without profit to the importer. To reduce these blooms to rail bars would involve a cost of from \$9 to \$12 per ton. Will "Protection" kindly let some one in the iron trade know where common bar iron is sold at \$60 per ton. To reduce Bessemer bloom to bars or light rails would involve an additional cost of \$6 per ton more than stated tional cost of \$6 per ton more than stated above, as that statement refers to 56 or 60pound rails

"Protection" further says: "This decision will, to a great extent, prevent the American workman and manufacturers from supplying their own market. We all know that for every pound of steel imported there will be just that much less manufac-tured in this country." This could only be true if the production of Bessemer steel rails in this country was adequate to the demand. That the producing capacity of this country for Bessemer steel rails is not adequate to the demand, is confirmed in the adequate to the demand, is confirmed in the fact that the production of last year was behind the real wants about 150,000 tons. This excess of orders went into iron rail mills, of which I shall speak more fully. Every ton of steel blooms brought into this country at this time will add just that much more to our productions of steel rails, will give just that much more work for the workingman, to say nothing of contributing that much more to the development of our railroad interests.

railroad interests.

The Pittsburgh Dispatch undertakes to give Mr. James Park, Jr.'s, views as authority for the public. Mr. P. says: "There is no such thing as steel blooms known to the trade," and he does not think the term is in use, as applied to steel, in Europe, but has been manufactured for the purpose of evading the duty on ingots. If I am correctly informed, Mr. P. certainly cannot make such a broad assertion on the plea of ignorance. The term "bloom" is common, both in this country and Europe, as applied by in this country and Europe, as applied by Bessemer steel manufacturers, and if Mr. P. is ignorant on this point, we would gladly refer him to the Bessemer steel works nearest to his city, where he will acquaint himself with the fact as here

Mr. Park's statement that "orders going to Europe at once for large orders for blooms would have a depressing effect on home inwould have a depressing effect on home in-dustry," cannot be sustained, for the fol-lowing reasons: The lowest I have known Bessemer steel blooms for making rails to be offered at was 75/per ton, f. o. b. in for-eign port. At this rate, at the ruling freight and insurances, these blooms would cost, delivered at mill, for converting into rails, \$32.18. To this add about \$10 to rolling mill for converting into rails and cover-ing the 10 per cent. waste in manufacture, and your rails cost \$42 per ton. At this same date our steel rail mills were selling their productions of steel rails at \$39 to \$42 per ton, and at even these low figures two of our largest makers of steel rails showed the handsome net earning of over \$300,000. It is, moreover, known that at from \$3 to \$5 per ton higher in price, our American mills have the preference. It is also a known fact that at these prices for steel rails in this country all of our large iron rail mills, with great loss to the owners, were obliged to close up, being unable to compete with steel. It is further known that there is a monopoly here further known that there is a monopoly here known as the Bessemer Company, Limited. This company own and control patents for making Bessemer steel, and each of the eight or nine Bessemer steel works in this country are members of this vast corporation (the Bessemer Company, Limited). This company, controlling the exclusive right to manufacture Bessement and water these transfer have ture Bessemer steel under these patents, have refused to grant rights to others to manufacture Bessemer steel, and that they have been a well and strongly protected monopoly there can be no question. Moreover, the cost there can be no question. Moreover, the cost to manufacture Bessemer steel rail is as cheap or cheaper than iron rails could be manufactured in this country. Now, all of these things being true, and it being also true that the demand for prompt and short delivery for rails being greater than Bessemer steel rail mills can take care of, and the price of old iron rails and pig iron being so high at this time that our iron rail mills cannot take the orders for execution at less Bessemer blooms of foreign make, since they will not sell blooms for quick delivery. We know of one Bessemer works that sold to two different parties a lot of blooms. One of the parties had the most difficult time in getting what blooms were contracted for, while the other party cannot get any.

ders for foreign blooms would be given for import into this country at once, and have the effect of reducing the price of home manufactures, if not shut them up or cause a general reduction of workmen's wages, is another demonstration of either ignorance of facts or disposition to deceive. Bessemer steel blooms of the lowest grade made in England cannot be bought at less than \$50 per ton to-day, and at this rate it is impossi-ble for our importers or iron rail mill owners to bring blooms into this country to manufacture into rails. These prices refer to orders of 1000 tons or more; orders smaller than this would not be entertained. It is also known that these blooms are only intended and fit to roll into railway which require only the lowest grade and commonest quality of steel, and to which the late decision of Judge French is sup-posed to refer. Of Bessemer steel blooms there have been purchased for import into this country less than 20,000 tons, and at the present market value in England it is not likely that any more orders will go out soon. Though it has been charged against the importers, it was never the intention of im-porters to break down the tariff or to injure

As to Mr. Park's assertion that large or

LETTER FROM EDWARD SAMUELS

PHILADELPHIA, Nov. 3, 1876 PHILADELPHIA, Nov. 3, 1879.

To the Editor of The Iron Age.—DEAR
SIR: The causes that led to the importation of steel blooms and the effect of the recent decision of the Treasury Department as to the duty to be levied on them, has of late been a topic of exceeding interest, not only to the importance but only to the main features of which importers, but also to the manufacturers abroad, the Bessemer interests in this country, the railroad companies who had failed to purchase sufficient supplies of steel rails, and, lastly, the manufacturers of iron rails. So long ago as last May, a Philadelphia house, interested in the manufacture of iron rails, noticing the low price of steel blooms in England and the strong demand for steel rails existing in this country, determined to send an order to England for a trial lot, be-

lieving that the duty properly assessable under the present tariff was 30 per cent. ad ralorem.

This lot arrived in Philadelphia during September, was assessed at 45 per cent. (from which the importers appealed) and

cost at that time (low freights then prevailing) about \$35 per ton, all charges paid. At this price a moderate profit could be made by rolling into steel rails at the going rates. The Treasury Department having decided on the importers' appeal that the duty assessed (45 per cent.) was correct, large orders were at once sent abroad, and under the stim ulus of these orders prices advanced there considerably. At this time one or two members of the Bessemer Association in this country became alarmed at the

country became alarmed at the magnitude of the business doing in foreign blooms, and solicited the Secretary of the Treasury to reexamine the matter, representing to him that the duty properly assessable was 2½ cents per pound, basing their assertions upon their statement that a bloom assimilated to an ingot and as the inget was detailed at all. got, and as the ingot was dutiable at 2½ cents, so must be the bloom—i. e., on the law of assimilation. The Secretary of the Treaof assimilation. The Secretary of the Trea-sury, on these representations, determined to reopen the case, and notified the import-ers accordingly.

This action, of course, caused a stoppage

This action, of course, caused a stoppage of further orders being sent abroad until the suspense of a definite decision was removed. And during this suspense prices on the other side continued to advance under the general side continued to advance under the general improvement to such an extent that, when the final decision of the department was promulgated on October 24, the price had so advanced, and freights also, that the blooms could not be imported here, all charges paid, at less than \$42. So far we have given a plain statement of the case as it stands, and now, looking at the matter from a Protectionist standout, we propose calling the tectionist standpoint, we propose calling the attention of our Bessemer friends to what we think was an error in judgment in their attempt to have a duty of 21/4 cents per pound imposed.

ound imposed.

In August or September, when this matter first became a subject of serious consideration for them, the condition of the order books of American Bessemer rail makers was such that they could not entertain propositions such that they could not entertain propositions for the delivery of rails before the spring of 1880. Many of the railroad companies were in urgent need of steel rails for fall uses, and it became an absolute necessity for them to buy somewhere. They did not wish to buy iron rails, and when it was proposed to them that these blooms could be imported and rolled at the iron rail mills, the problem was solved, and they cladly availed them. was solved, and they gladly availed them-selves of the opportunity. And right here we would make this pertinent query: Was it better either for the American Bessemer interests or the country itself that we should import blooms, and give to our work-men here the benefit of the wages resulting from rolling these into rails, say, in all, \$10 per ton, or to import the rails and give our foreign friends this extra \$10?

The reply can only be one way—that is, if it were absolutely the fact, that either the rails or blooms must be brought from abroad, why, of course, let us have the blooms.

Now, had the duty been determined at 21/4 cents on the blooms, we should have imported the rails at 14 cents, and our mills and labor would have lost the \$10 per ton they now get for manipulating the blooms.

they now get for manipulating the blooms.

An effect of these importations, although hardly noticeble at present, is now plainly foreshadowed, and that is, or rather will be, the advancement of foreign makes of Bessemer pig to such figures as will enable the American makers of the same article to receive a fair compensation for their output, a condition recently destroyed by the rapid advance in conventions. vance in general iron, quite a number of the furnaces heretofore making Bessemer pig having changed their mixture and 'gone on' to "plain iron," the prices being more remunerative. That this condition was anomalous no one disputes, and that it should be rectified in the way we suggest will, we believe, soon take place. Already foreign Bessemer pigs, which sold freely in August at \$21.50, duty paid here, have advanced and readily command, for good brands \$28 @ \$30

At the present price of blooms laid down here, duty paid, it would not be possible to expect the continuance of the business in a very large way unless the price of steel rails is materially advanced, and it rests entirely with the ability of our American steel rail makers to supply the wants of the country as to what this price shall be. If they can supply the demand they may, by keeping the price of steel rails at their present quotations, prevent further importations of steel blooms. As it is, we believe that this entire matter, so far as the quantity of importations is concerned, has been very much magnified, and will not exceed in toto 35,000 with three sides, and the edges are so with three sides, and the edges are so with three sides.

tions, and if our manufacturers look solely to keeping their customers supplied, we tack revolution of the crank, the keen cutthink the importers will do less harm than is any more than it was the intention or wish of the consumers of old foreign iron rails to think the importers will do less harm than is imagined.

Respectfully,
EDWARD SAMUELS.

A Combination Fruit Press and a Sausage Cutter, by the Enterprise Manufacturing Company.

or tearing it to pieces, and turning it out very rapidly.

Clark's Patent Rubber Rolls, Wheels and Casters.—The rubber part of these wheels is made in such a manner that it is impossible for them to get out of place by



Fig. 1.

can be readily understood by examining Fig. 2, which represents the machine taken apart. It consists of a tapering cylinder, with hopper or bowl to receive the article to be operated on. In the interior of the cylinder a tapering screw fits snugly, the upper portion of the stand or legs forming the cover of the large end of the cylinder, and also serving as a bearing for the journal of the screw. On the under side of the casing is a hollow rib or channel into which the



Fig. 2.

strainer plate fits, thus allowing substances pressed to pass through freely. The article to be pressed is fed into the hopper, then by turning the crank the liquid or juice is expressed illustrations of casters and wheels made ing the crank the liquid or juice is expressed and passes through the strainer, while the mass or pulp is ejected at the outlet.
s saves the trouble of handling and re-

handling necessary with ordinary presses. The manufacturers claim that this press under his patent are shown.

A Proposed Elevated Railroad .- A will also serve as a sausage stuffer and

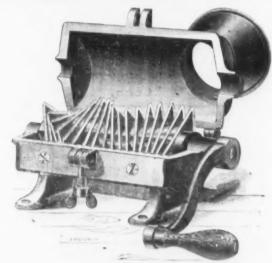


Fig. 3.

press, and will dispense with many of the slow forms of maceration and percolation of the old Navy Yard, with a branch to The article is patented in the United States

The new boiler works of Frazer & Chalportations is concerned, has been very much magnified, and will not exceed in toto 35,000 tons.

It is always an unfortunate thing in prosperous or any times to agitate tariff questions.

A.C. COES

PAT.DEC. 26.1871

Established in 1839

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Wrenches

PATENTED,

December 26, 1871.

December 28, 1875

by the bar-not by the handle.

August 1, 1876.

May 9, 1871.

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PEN AND POCKET CUTLERY, Solid Steel Scissors, Shears, Razors, &c.

ELECTRIC RAZORS," And the "ELECTRIC SHEARS." Nickel Plated Celebrated Bows.

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Established 1853. Manufacturer of Pen and Pocket Cutlery, Pepperell, Mass My Blades are forged by hand from the best Cast Steel, a Medal of the Conn. State Agricultural Society. Office in New York with E. P. Whipple, to Chambers St. by hand from the best Cast Steel, and warranted. To me was awarded the Gold

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Every pair warranted. Sold by Hardware Dealers throughout the country. Salesrooms, 84 & 86 Chambers Street, New York City. Manufactory, HOLYOKE, MASS

STANLEY RULE AND LEVEL CO.





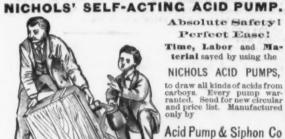
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WAREROOMS,

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No. 113, Improved Adjustable Circular Plane



Absolute Safetyl Perfect Ease! Time, Labor and Material saved by using the NICHOLS ACID PUMPS,

cid Pump & Siphon Co New London,

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The Old Way.



PATENT APPLIED FOR.



This Hook has many points of ad-antage over anything offered, being asily put up, holding the line firm; nd a line can be put up and taken own without tying or untying, and is leap. Manufactured only by

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BRASS PAD LOCKS

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BALL'S PAT. SOLID STEEL SHEEP SHEARS. These shears are unsurpassed for cheapness, du bility and utility. They are made of one solid pied of steel from point to point, and cannot be broken use either in the bow or at the junction of the shain and blade. Samples can be seen at above address, ample lots furnished.



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Pocket Knives and

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CORPORATE MARK





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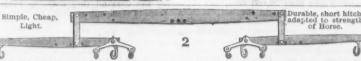


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Frederick's 3-Horse Equalizer is a perfect Double Tree, a perfect etcher, a perfect attachment for either 2 or 3 hc BROOKLYN, N. Y. M. E. BUNGER & CO., Indianapolis, Ind., Manufacturers.

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Table Knives, Razors, Shovels, &c., &c., of every description.



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The backstrain when the wrench is used is borne

The strongest Wrench made, and the only suc-essful Re-enforced Bar.

The Best and Most Ornamental Caster in the Market.

Do not cut, soil or rust carpets or matting. Center bearing, they do not split furniture. Warranted not to break. They improve the tone of pianos 35 per cent., and are recommended by physicians as a preventive of rheumatism, sleeplessness, &c. By insulating bedsteads they prevent loss of electricity from the body, and protect from lightning.

For sale by the Hardware trade generally. For circulars and price lists address,

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IMPROVED FLOUR & SUGAR AUGER

With Bee's Patent Cutting Screw. Best Cast Steel with Rosewood Handle.

Bores easily through any cask or barrel fectly smooth and true hole.

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GOODELL COMPANY'S TABLE CUTLERY.



This is the original Solid Hot Water Proof Handle. Unequalled in Strength, unapproached in style, unexcelled in finish. We other manufacturers. The public patronage is respectfully solicited.

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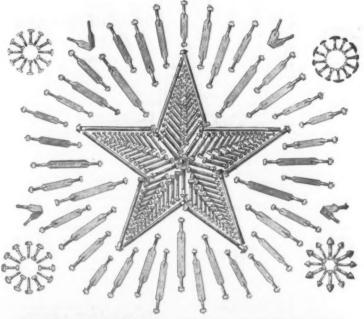
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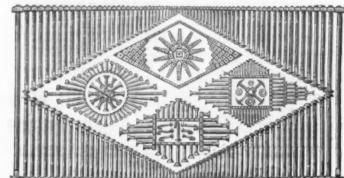
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HEADQUARTERS FOR SCYTHE, AXE, KNIFE, HACKER AND TOOL STONES.



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Strong, Clear Crit Stone that will not glaze.

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greater degree of accuracy is obtained, and as very much less metal is removed from the roll by the inding operation, the rolls will last much longer. Our Grinding Machines produce perfectly accurate work, and will grind either straight or hollow.

The St. Louis Globe Democrat, in an article on the lead of the country, thus concludes: In 1878 we consumed about 73,000 tons. It is estimated it will require about 100,000 tons to meet this year's demand. Pig lead is advancing in England. Russia has come into the London market for 20,000 tons within the past two months. Russia buys of England. past two months. Russia buys of England, on the average, \$1,000,000 worth of pig lead per annum. England is a heavy exporter of lead to China, Japan, the Oriental and South American markets. Her exports of lead in her best years of trade have run up lead in her best years of trade have run up from \$5,000,000 to \$7,000,950. The United States ceased importing in 1876, and we have also become exporters; but our de-mand now requires our entire output. We have very rich mines in Missouri, and this important interest will undoubtedly attract more attention in the future, as our supply is now below our wants.

The wages of the South Staffordshire iron workers was advanced 6 pence per ton by

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Blast Furnace For Sale or To Lease.

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This Furnace embraces all modern improvements, has extensive docks on the Niagara River, to which the largest lake craft can safely approach; is also convenient for canal boats to or from the Eric Canal at Tonawanda.

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At Lawton, Michigan, on the Michigan Central Railroad. In good condition, and can be started in a few weeks at a small expense. Abundance of fuel and cheap labor. Very favorable freight con-tract goes with the property.

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For sale, or lease under royalty, in New Jersey, near rail and water transportation, and in the neighborhood of other mines now worked, a farm of roz acres with valuable iron ore. For further particulars apply to

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Boiler 150-horse-power, engine 200-horse-power, and other smaller sizes. Machinery for rolling steel tires complete. Machinery for making ice with the greatest economy. All sizes built at short motice. Boilers built to order warranted the most ponomical.
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WANTED.

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Address, PRESIDENT,
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Car-wheel Borer, Bement.
20 in. x so ft. Sellers Lathe.
36 in. x syf ft. Sellers Planer.
Crank Planer, two Fox Lathes,
Three Milling Machines, Screw Cutters,
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Bissell & Welles. Wholesale Hardware Auctioneers.

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Wanted—Second-Hand Machinery

1 66-inch Planer, 20 feet long. 1 36-inch Swing Lathe, 20 feet long, Screw Cut. 1 24-inch Swing Lathe, 14 or 16 feet long, Screw

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1 Punch and Shears, to punch 26 or 36 inches from edge. Must be in first-class order and very cheap for cash. Address, stating particulars, JAMES SHERIFFS, oor. Barclay and South Water Streets, Milwaukee, Wis.

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Dealers in Locks and General Hardware.—A your w man of 12 years' experience in the Hardware and Lock trade would like a position of any kind v here his knowledge would be of value. Can giv, 's athis actory references, and not a fraid to work. Expectations moderate.

Special Notices.

Second-Hand & New Tools FOR SALE.

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The Tools in the following list are all of Wood, Lighte & Co.'s make, have been used, but are all in good order and will be sold very

ow:

Five Engine Lathes, 15 in, swing 6 ft. bed.
Five Engine Lathes, 20 n. swing 7½ ft. bed.
Five Engine Lathes, 20 in. swing, 8 ft. bed.
One Engine Lathe, 21 in, swing 12 ft. bed.
Two Upright Drills, 22 in. swing, 12 ft. bed.
Two Upright Drills, 22 in. swing, not geared.
One Upright Drill, 22 in. swing, not geared.
One Planer, 27 in. x 37 in. x 10 ft.
One Planer, 22 in. x 66 in. x 24 ft.
One Shaping Machine, 12 in. stroke.
Four Bolt Cutters, various sizes.
One Horizontal Boring Lathe.

The following are all new tools to be sold very low, and are all Wood, Lighte & Co.'s

One Shaping Machine, 14 in. stroke. Seven No. 2 Bolt Cutters. One No. 1 Bolt Cutter, with centers Five No. 2 Bolt Cutters, with center.

Also the following miscellaneous Tools:

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One 15-horse-power Upright Engine, boiler and all connections, made by the N. Y. Safety Steam Power Co.—as good as new.
One Portable Engine, 6 in. cylinder,
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Two Engine Lathes, 13 in. swing, 6 ft. bed. Two Engine Lathes, 13 in. swing, 6 ft. bed. One Engine Lathes, 22 in. swing, 8 ft. bed. One Engine Lathes, 25 in. swing, 8 ft. bed. Three Engine Lathes, 25 in. swing, 6 ft. bed. Three Engine Lathes, 25 in. swing, 6 ft. bed. Three Higher Lathes, 26 in. swing, 6 ft. bed. Three Higher Lathes, 26 in. swing, 6 ft. bed. Three 4-spindle Drills.
One Gear Cutter. One new "Hardaway" Bolt Heading Machine to head up to 1½ in. bolts. One new "Hardaway" Bolt Heading Machine to head up to 1½ in. bolts. A lot of Saw Tables and Wood Working Machinery.
Please specify which of the above tools you want and we will forward all particulars.

A Woodruff & Beach Beam Engine,

Low pressure, 42-inch cylinder, 84 inch stroke, with fly-wheel pulley 20 feet diameter, 36 inch face, and

Four Tubular Boilers, 60 inches in diameter, 20 feet long, and all con-nections practically as good as new. For sale by

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The undersigned desires to inform all Manufacturers of Hardware throughout the United States that he has fitted up rooms, centrally located, well lighted, &c., running through from Chambers to Reade street, for the exhibition of manufactured goods in all lines of hardware. Any manufacturer can at a small annual cost exhibit his wares to actual buyers throughout the year, and all visitors can examine them free.

The advantages to both manufacturers and buyers are too apparent to need any explanation. For further particulars and application for space address

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WANTED—By a young man who has traveled as representative of two leading wholesale Hardware establishments in Montreal for 7 years, through all parts of the Dominion of Canada, and possesses a thorough knowledge of both the country and merchants, a situation as traveler for a mercantile or manufacturing firm desirous of pushing their business in the Dominion. Will be open for an engagement on or before the 1st of January next. Unexceptionable references.

Address, BOX 85, Post Office, Montreal, Canada.

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Any party having 200 to 300 tons of second hand good iron or steel rails, from 30 lbs. to the yard and upward, for sale, can address,

D. H. JEROME & CO.,

Lock Box 26. Allentown, Pa.

Saginaw, Mich. FOR SALE OR RENT.-The Pequest fur nace and soo acres of ore and limestone : land can be sold or leased at a reasonable price E. DALLETT HEMPHILL,

WANTED—A situation in a manufacturing or jobbing Hardware house, either as book-keeper, cashier, stock buyer or salesman; 35 years of age; have had 20 years' experience in one large Company in this city; thoroughly posted in the business, from manager down. Salary moderate and reasonable.

ble, MERCHANT, Station "L," New York City, N. Y.

FOR SALE OR RENT.

The Rolling Mill Property at Topeks, Kansas, known as the Topeks Rolling Mill, for rerolling old rails, apacity about fifty tons per day, Machinery of toot approved kind and in good order, having been un but about six months. Farties desiring to lease buy the property can do oither on favorable terms. For particulars address,

T. B. SWEET, Topeka, Kansas, ROYAL M. BASSETT, Birmingham, Con

WANTED.

A competent and skilled workman as foreman of a Tool and Vise Works. Must be middle aged, strictly temperate, competent, trustworthy and accustomed to steam, trip and drop hammer work. To such a man, and one proving himself worthy, a very fine position is assured.

osition is assured.
Address,
WARREN SPRINGER'S MACHINERY DEPOT,
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FOREIGN MANUFACTURERS, Wanting the best

AMERICAN SPECIAL MACHINERY

or making Rules, Levels and other Mechanics' Cools, Hardware and Specialties, are invited to orrespond with RICHARDS & DOLE, Springfield, Mass., U. S. A.

There his knowledge would be of value. Sangiv, satisfactory references, and not afraid owork. Expectations moderate.

Address
Office of The Iron Age, \$\(\beta\) Reade St. New York.

Special Notices.

PUBLIC SALE

Valuable Coal and Salt

In pursuance of a resolution by the parties in interest of the Clifton coal and salt property, we shall, on

Property.

Fourth Day of December, 1879, on the premises, in the town of Clifton, Mason Connty, West Virginia, proceed to sell by way of public auction, the following described real estate, to wit:

on the premises, in the town of Clifton, Mason Connty, West Virginia, proceed to sell by way of public auction, the following described real estate, to wit:

All of certain tract, known as the main tract, containing & acres, which was conveyed to the Clifton taining & acres, which was conveyed to the Clifton taining & acres, which was conveyed to the Clifton of the continuous tract, and fully described by Deeds of Record, in the Clerk's office of Mason County, by meets and bounds, save and excepting a number of lots, heretofore sold, and conveyed with reservation of coal underlying the same, a fair exhibit of which will be made on the day of sale by the undersigned. And exhibit will be made of 107 improved and unimproved lots in the town of Clifton, which will also be sold on the same day.

The entire property hereby offered for sale being the 100 lots; the Ferry Landing upon the undersigned. Upon this tract is situated the Bedford Furnace and 15 factures, in full operation, and it being one of the largest producing furnaces on the river. There is also situated on the Ohlo bank, immediately in front of this tract, the Clifton Nail'Mil, the Va. Sait Furnace, and the Burnap Sait Furnace, all costly and valuable works built on lots cut off the above property that have heretofore been operated with coal drawn from this property, and the same time. Also, all the coal and other mineral underlying that tract of land formerly owned by H. Hinkle and wife, containing 80 acres, with the right and privilege of mining and removing the same, and all ways and rights of ways, either above the ground or below the surface, and the same lies adjoining the main tract. Also, one other coal tract, lying on the bank of the Ohlo river, a few rods below the main tract, containing 80 acres, with the right and privilege of mining and removing the same, and all ways and rights of ways, either above the ground or below the surface, and the same lies adjoining the main tract. Also, one other coal tract, lying on the bank of the Ohlority, a

B. J. REDMOND, Trustees.

The Geo. Place Machinery Agency, FOR SALE OR LEASE A MANUFACTURING ESTABLISHMENT

IN SCRANTON, PA.

IN SCRANTON, PA.

On corner of two main streets, only one-quarter mile on level road from two railway stations. Size of lot 50 by 150 feet; main building, 30 by 100 feet; engine, 32-horse power. Buildings and machinery first-class and nearly new.

Underlaid and surrounded with coal, the cost of fuel for steam is merely nominal. Heat forge coal \$1.50 per ton. With complete lines of shafting, &c., the premises can be easily and cheaply adapted to any light manufacturing business.

Former proprietor, after surcessfully manufacturing Axes and Edge Tools in the vicinity for 20 years, designed and built this shop at an expense of \$10.00 for the continuance of the business, but failed during the late depression.

Having neither time nor ability to run those works, I will sell very low on easy terms.

AMBROSE MULLEY,

AMBROSE MULLEY, Providence, Lackawanna County, Pa.

For Sale.

One 18-in. Bar Train, 3-high, with rolls, for

ounds, flats and squares. One 18-in. Muck Train, 3-high. One Breaking-down Train, 2-high.

One Rotary Squeezer. One Engine, 28x40.
One " 14x30.
One " 0x32.

One "9x3s.
One Rail Punch and Straightener,. Two Rail Saws and connections, all in good order having been in use only a short time. For terms &c., address,

J. M. BROWNSEN, P. O. Box 748, Pittsburgh, Pa.

A New Ax Factory For Sale at Half Cost. Built with all modern improvements and at panic prices in 1876. Building, machinery and engine all complete, in first class order, rendy to start; capacity about 150 dos. axes or tools per day. Both steam and water communication with coal mines, New York and the West. Coal landed in bins from canal without cartage. Location in great iron manufacturing center. Address A. M. HANNON, Coboes, N. Y. Or J. H. PARSONS,

Provident Life Insurance Co.,

Western Union Building, New York.

ANTHRACITE BLAST FURNACE For Sale or Lease.

Situate on the Susquehanna & Schuylkill R. R., near Fine Grove, Schuylkill Co. Capacity, 12s tons per week. With 14s acres of good Land, 5 busses, Barns, Stables, &c. A branch of the Swatara Creek runs close to the Furnace. 25 miles from Cornwall Ore Bank, 18 miles from limestone, and to from coal.

POTTSVILLE, PA., October 9, 1879.

WE QUOTE FOR

STEEL OR IRON RAILS, STEEL TIRES, Axles, Forgings, Bars, Plates, Angles, Sheets and Billets of any temper or for any purpose. Also, Steel Nail Sheets, Wire Rods, Springs, and all kinds of Steel goods. Also, Spiegeleisen, Ferro-manganese and Silicious Pig Iron, f. o. b. any British port, or c. f. i. any United States port. Thirty years' experience in the Steel Trade.

NIXON BROTHERS, Newcastle-on-Tyne.

TO MANUFACTURERS.

Two experienced Hardware salesmen (one travel-ing South, the other West) desire to add additional lines (not conflicting with present engagements) or specialties, and solicit correspondence with manufac rers desiring to make such an arrangement. S. AND W.

P. O. BOX 761, Baltimore, Md.

WANTED.

Situation as Salesman, Business Manager or orrespondent, by a gentleman who has been or nected with a large rolling mill for many years, and has an extensive acquaintence with the merchants and consumers of iron throughout the country. Address, Office of The Iron Age, 77 4th ave., Pittsburgh, Pa.

Special Notices.

DON'T BUY

MACHINERY

UNTIL YOU WRITE TO US

for our List No. 20, containing full description with prices, of over 2000 New and Second-Hand Machines, such as

MACHINE TOOLS.

BLACKSMITH TOOLS WOODWORKING MACHINERY.

> STATIONARY AND HORIZONTAL ENGINES AND BOILERS. PORTABLE ENGINES, HOISTING ENGINES,

CAR MACHINERY, WATER WHEELS. COTTON AND WOOLEN MACHINERY.

> SAWS. STEAM PUMPS, &c., &c.

We offer the largest collection ever in the hands of ONE FIRM before, and at

PRICES FAR BELOW THEIR TRUE VALUE

Enclose stamp and state fully just what Machine or Machines you are in want of. Address

S. C. FORSAITH & CO., MACHINISTS,

AND GENERAL MACHINE DEALERS.

MANCHESTER, N. H. Fifty Cents.

JUST ISSUED. SECOND EDITION OF LEIGH'S

Discount Book, with a Guide Page added, by which any desired table can be referred to instantly, without turning a leaf or weating a moment. This edition is handsomely bound in cloth, and will be mailed to any address upon receipt of the price, 50 cents.

Bound in leather, with silicate leaves, price \$1.

EDWARD B. LEIGH, St. Louis Elevator, St. Louis, Mo. Or either of the Publishers, viz: IVISON, BLAKEMAN, TAYLOR & CO., New York R. & T. A. ENNIS, St. Louis.

LAMBERSON'S

HARDWARE PRICE BOOKS A good price book is at all times indispensable in a hardware store, and just now, while prices are changing every day, it is an absolute necessity. My price books have come late general use and are endorsed books have come late general use and are endorsed on the prices of the store of the

BUELL LAMBERSON. No. 97 Chambers Street, New York City, For sale at publisher's prices by Wm. Blair & Co. Chicago; A. F. Shapleigh & Co., St. Louis; C. B. James, Detroit; Edward Butman, 1995; Vine st., Cincinnati.

For Sale.

THE ROUGH AND READY HOT BLAST CHARCOAL FURNACE

situated in one of the healthiest regions of Tennessee, with all its modern improvements, including a 20 horse-power engine, and two 40 feet boilers. The furnace is in close proximity to inexhaustible supplies of rich brown hematite ore and limestone, and the rail and river shipping facilities are excellent. Iron can be manufactured for not exceeding §18.00 per ton, and put into market within 24 hours. Furnace can be put into market within 24 hours. Furnace can be put into market within 24 hours. Furnace can be put into market within 25 hourse of fine timber land, (including 1300 acres which are improved and under cultivation) a Saw and Griss mill with a 12 horse-power engine flue boiler, Carpenter and Blacksmith shops, Stables and Cribs, Coal, Engine, Clinder, Casting, Tool, Store and Ware, and about 65 Dwelling Houses. It is the wish of the undersigned to sell only the whole of this property, which can be bought on reasonable and liberal terms. For further particulars

Address D. THEOBALD, Youngstown, Ohio. A. GUCKENHEIMER & BR

A THOROUGH SALESMAN, with many years' A experience on the road, and a good acquaintance with the Hardware Trade both East and West, is open for an engagement. Could invest if desired, a few thousand dollars in a sure and good thing where the man is needed more than the money. Speaks German. Please address "FRITZ."

Office of The Iron Age, 83 Reade St., New York.

FOR SALE.

Hardware Stock and Fixtures in one of the best towns in Nebraska. Will be sold low for satisfactory reasons. About \$2500 required. A splendid Address

HARDWARE Box sr, Lincoln, Neb.

FOR SALE.

A large lot of BARBED FENCE WIRE, at a very low figure, in quantities to suit purchasers The very best STEEL WIRE made. Terms, spot A. W. WHEELER. 141 Lake Street, Chicago.

FOR SALE.

Job Lots and Bankrupt Stocks Hardware. Great bargains offered to the trade.

A. W. WHEELER.

141 Lake St., Chicago, Ill.

office of The Iron Age, 77 4th ave., Pittsburgh, Pa.

ITUATION WANTED—Constructor and Superintendent of Rolling Mills, Steam, Hydraulic and Special Machinery, also of Manufactories Best references. Address C. S.,

Office of The Iron Age, 83 Reade Street, N. Y.

N. Y.

Special Notices.

One Steam Hammer,
One Pair Shears,
Three Large Steam Pumps,
Three Smail Steam Pumps,
One Holsting Engine,
Three Steam Boilers,
One Lighthall Condenser,
One Surface Condenser,
Low Pressure Gauges, Registering
Gauges, &c.

DANIEL W. RICHARDS & CO.,

Dealers in

Scrap Iron & Metals.

88 to 96 Mangin St., New York.

PARK BENJAMIN'S

SCIENTIFIC EXPERT

37 Park Row, New York. CONSULTING ENGINEERS AND EXPERTS.

New inventions examined, tested and reported upon as to efficiency and value for investors. Examinations made into noveity of new devices. Validity of patents investigated. Expert evidence in all branches of science in law suits.

Machinery designed. Mechanical engravings prepared.

JOHN R. WHITLEY & CO.,

European Representatives of First-Class American Houses,

IN THE Principal Industrial and Agricultural Cities and Centers of Europe.

FIRST-CLASS AGENTS

TERMS ON APPLICATION. LONDON,

7 Poultry, E. C. 8 Place Vendome. THOS. TURTON & SONS.

WM. CREAVES & SONS, Steel, File and Railway Spring Manufacturers.

esire to give notice that they have removed their lace of business from 102 John Street, New York, 40 Kilby Street, Boston, where their American interests will be in future under the management of MR. ALEX. A. ARTHUR.

SHEFFIELD, ENGLAND,

JOHN E. SWAN & BROTHERS, RON MERCHANTS,

Glasgow and Middlesbrough.

Exporters of all brands of Scotch & English Pig Iron.

c. f. i. to America and f. o. b. British ports. Old Iron Rails, Puddled Bars

AND MANUFACTURED IRON. The Sherman Process Co.

9 Pemberten Square, Boston, Mass.. Issue Licenses to use the Process for the Manufacture of Iron and Steel In the Bessemer Converter, Crucible, Siemens Martin, Puddling, Blast and Cupola Furnaces.

Martin, Pudding, mast and Cupous Purnaces.

The use of this Process improves the quality of
the product, saves fuel and labor, and does not require any change in furnace or manner of working
See page 17 of The Iron Age of Oct. 25th, 1877.

TO LARGE CONSUMERS of fine light Malleable and Gray Iron Castings. Malleable and Gray Boll Oddings. We can offer special inducements in the way of very superior quality guaranteed, and at fair prices. Being ourselves large consumers and requiring the most perfect castings, other work sensured the same attention.

War

For casting also e hardy

Mines, tario, and m cost m per ton ton, On

A N throug Januar special Addr

S sist.
in Rolli
for cha

MALLORY, WHEELER & CO., CALIFORNIAN AGENCY.

A San Francisco firm of File and Tool makers having an agent constantly traveling among the consumers in the State and West Coast, is desirous of representing some first-class Eastern Houses in the manufacturing hardware trade. Address AGENCY, 248 Beale St., San Francisco, Cal-

TO MANUFACTURERS AND CAPITALISTS. FLOWER PINS. PATENT FOR SALE.

Address J. H. PLUMMER,

1276 Pacific Street, Brooklyn, N. Y. Foundry To Rent.

at South Norwalk, Conn. The Foundry of the Norwalk from Works Co. is of-fered for rent, and if desired a limited amount of space with power in the machine shop, to sparty engaging in the foundry business or some spetial line of manufacture which will not interfere with steam engine and general machine work. For partic-ulars, Apply to South Norwalk, Conn.

Sanderson Bros Steel Co. A limited number of shares for sale by EDWARD FRITH & SON, 241 Pearl street, New York.

Special Notices.

TO BRASS FOUNDERS.

A Rare Opportunity.

FOR SALE.

Iron Fittings, and Steam Radiators,

LATELY BELONGING TO THE

DETROIT NOVELTY WORKS.

The drass Goods Patterns consist of nearly a full inn of Globe, Angle, Safety and Chuck Valves, Brass and Iron Bodies; Safety, Back Pressure and Cross Valves; Steam Gocks, Drass and Iron; Blow-off Cocks, Steam Bibbs, Steam Stops, Daion Meter-Cocks, Service Cocks; Compression Gauge Cocks, Water Gauges, Steam Whistles, Pet Cocks, Clindler Cocks; Hollow Plug, Locomotive and Plain Oil Cups; Gong Bells and full complement of Brass Fittings; Plain, Wash Tray, Bath and Hose Bibbs; Compression Plain, Hose, Wash Tray and Bath Bibbs; Compression and Plain Stops and Waste, Shower and Circulating Stops. Crooked and Straight Rough Stops, Compression and Self-Closing Basin Cocks, Basin Plugs; Racking, Boller and Globe Cocks; Sink Plugs, Boller and Waster-back Couplings, Ale and Beer Cocks, Bose Pipe Couplings and Nozeices.

Couplings, Ale and Beet van August 2000 and Nozzles. The Fittings Fatterns embrace Elbows, Tees, The Fittings Fatterns ends, Plugs, Caps, Locknuts Bushings, Flange Unions, Manifolds, Flanges and Pipe ings, Flange Unions, Manifolds, Flanges and Pipe Hook Plates. The Steam Radiator Patterns are complete from 8 to

A large number of other patterns are also included in the lot. These patterns are in good condition, and form a complete outfit for a Brass Goods Establishment. They will be sold very cheap, and on easy terms, to any one who will take the whole. The first cost was not less than \$25,000. To a firm of small capital they will afford an opportunity of starting and building up a valuable business, especially in the West, where the Detroit Novelty Works were among the largest manufacturers in their line, and their goods were well known. well known.
For further particulars apply to the

DETROIT IRON & BRASS MFG. CO.,

Detroit, Michigan.

TUCKER BRONZE.

The trade are notified to cease the sale of iron goods bronzed by the use of oil or varnish and high heat, as described in my patents reissued Sept. 11, 1866. These patents have been repeatedly sustained by the United States Circuit Courts in Massachusetts and Connecticut, and injunctions are now in force against the use of the process as well as the sale of the product.

The Russell & Erwin Mfg. Co, is at present the only licensee under these patents.

Licenses to use the patentsd process will be granted on easy terms, and liberal settlements will be made for past infringements with those who apply at once.

Further infringements will be promptly prosecuted.

HIRAM TUCKER, 62 Equitable Building, Boston, Mass.

TOR SALE OR TO HENT.—The Cresent Iron and Nail Works. These works are located at Cresent station on the Northern Central railroad, about 10 miles from the city of Williamsport. The puddling furnaces and rolls can make daily five tons of any kind of bar iron or nail plates. There are 16 nail machines capable of producing too kegs of nails per day, also good blacksmith, carjenter and cooper shops; circular saw for sawing keg staves; store for employees supplies, large towards a supplies, large towards and cooper shops; circular saw for sawing keg staves; store for employees supplies, large towards to horse power. The mill property comprises also to acres of land, a portion of which is cleared land, and balance timbered with Pine, Hemlock, Chesnut and other timber. All the works are in good condition, and afford facilities for successfully conducting a large and profitable business. For further information.

Address or apply to R. J. C. WALKER. Williamsport, Pa

FOR SALE.

Lease of a valuable Iron Ore Mine, soo miles from New York on tide water. Ore admirably adapted for Bessemer steel, and 300,000 tons in sight.

Address, Office of The Iron Age, 83 Reade St., N. Y.

MAGNETIC.

Partner Wanted.

In an established Hardware Trade in one of the smartest country towns in western New York. Best of references given and required.

E. W. STOWELL, Livonia, N. Y.

AT PRIVATE SALE.

A Merchant Bar Rolling Mill, well located, with excellent railroad connections. Immediate pos-session can be given. When in operation had a good reputation as a bar mill. Price moderate and terms easy

CHRISTIAN PRETZ,

FOR SALE.

Part or whole interest in an established Hardare business in Philadelphia.

Address, with real name, RUSINESS

Office of The Iron Age, 200 S. 4th st., Philadelphia.

POLLING MILL FOR SALE AT A GREAT BARGAIN.—A complete Mill, well supplied with water and ateam power, everything required to make merchantable iron; eligibly located; will be sold at a great sacrifice. Apply to P. CASSIDY, 4 to 10 Bridge street, Brooklyn.

FOR SALE OR TO LEASE.—Factory Property at Elizabethport, N. J., comprising casting, annealing, tumbling and finishing shops; also engine and boiler and tools to make saddlery hardware or other melleable fron goods.

P. BALEN, 84 Broad St., New York.

TO FUENACE MEN.—FOR SALE OR LEASE.—Group of developed Magnetic Iron Mines, convenient to shipping point on Lake Ontario. Ores run about 60 per cent. metallic iron, and make tough iron or Bessemer steel. Average cost mining and freight to Cleveland about \$2.50 per ton. Apply to BAWDEN & MACHAR, Kingston, Ontario.

AN EXPERIENCED TRAVELER acquainted with the Hardware trade throughout the West, desires an engagement January 1st, with an Eastern manufacturer of specialties. High reference.

BOX 296, Chicago.

SITUATION WANTED as General or As Sistant Manager, by a man of long exterionce in Rolling Mill and Nail Business. Best references for character and ability. Address MANAGER, Office of The Iron Age, 83 Reade St. New York.

A ROLLER WANTS A SITUATION ON liven, other small or bar mill. Is a good and steady workman. Can turn rolls, or would take charge of a small place where a thorough knowledge of the business would be of advantage. For further particulars address. ROLLER, ROLLER, of the brown Age, 83 Reade St., New York.

Trade Report.

WEDNESDAY EVENING, November 5, 1879.

On Saturday last a dispatch from Wash ington was received saying that the Trea sury would buy \$10,000,000 United States ber cent. bonds for the Sinking Fund Patterns for Brass Goods, Cast On Monday the following circular arrived : PURCHASE OF UNITED STATES BONDS FOR SINKING FUND.

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
WASHINGTON, D. C., NOV. 1, 1879.

The Secretary of the Treasury hereby gives notice that proposals will be received at the office of the Assistant Treasurer of the United States at New York, until noor of Saturday, the 8th inst., for the sale to the government of \$10,000,000 of any of the per cent. interest-bearing bonds of the United States, at which time the bids will be opened and awards declared; the bonds purchased to be applied to the Sinking Fund, as provided in Section 3694 of the Revised Statutes of the United States.

Proposals will state the specific character Alte of the bonds offered, whether registered or coupon, and under what acts they were issued, and may be for any amount not less

than \$5000.

The offers must be for the sale of the honds with accrued interest to and including the 8th instant, and each proposal must en-close a certified check for 5 per cent. of the amount of bonds offered. The checks of unsuccessful bidders will be returned as soon as the result is ascertained, and those of others on the following business day, when the bonds must be delivered, and the payment in lawful money will be made as soon as they can be duly examined. The right is reserved to reject any and all bids and waive any defects. JOHN SHERMAN, Secretary.

Han

Western Union Telegraph. New Central Coal.....

in this respect.

6od. \$3.60 net for round lots.

GENERAL HARDWARE.

eral Hardware in an active and healthy con-

The demand for foreign Hardware is re

The Russell & Erwin Manufacturing Co.

have issued a number of new pages for insertion in Volume 5 of their Catalogue, in

which they illustrate new styles of Mortise

Knob Locks, Kahala Bronze Shutter Bars,

Tumbler Padlocks. They have also issued.

under date of 15th ultimo, a revised dis-

count sheet to apply to their catalogue, Vol-

prices which have occurred up to its date.

from which we extract the following:

expect the trade to maintain:

ruling rates at date of shipment.

Manila Rope.

1¼ inch cir. and upwards...

12 thread, or ¾ inch diameter
6 and 9 thread, or ½ and 5-16 diameter.

1lay Kope. 2, 3, 4 or 5 thread...

Bolt and Point Rope.

Tarred Rope and Lath Yarn.

Stave, Leather and Hop Twine.

Nails 10 per cent.

prices are as follows :

The Bridgewater Iron Co., No. 73 Pearl

street (N. Stetson, Jr., Agent) have advanced the price of Bridgewater Horse

A further advance in price of both Manila

and Sisal Rope was adopted by the Manu-

facturers on the 1st instant. The revised

Manila Rope.

Cte. 19 1b

The Western File Company, Limited-

Section 3694 of the Revised Statutes reads as follows:

Section 3694.—The coin paid for duties on imported goods shall be set apart as a special fund and shall be applied as follows:

First.—To the payment in coin of the interest on the bonds and notes of the United States. Second.—To the purchase and payment of per centum of the entire debt of the United States, to be made within each fiscal year, which is to be set apart as a sinking fund, and the interest of which shall in like man-

ner be applied to the purchase or payment of the public debt as the Secretary of the Treasury shall from time to time direct. Third .- The residue to be paid into the

Treasury. From the above it will be seen that the urchase or payment of bonds for the sinking fund "within each fiscal year" is mandatory, and moreover to the extent of I per cent, of the entire debt of the United States.

The money market has been firm, with rates on call as high as 7 % @ 3% of 1 % per day. The rates of discount on prime mercantile paper are unchanged.

Government bonds were slightly lower early in the week, but closed firm by reason of the Treasury operations as an nounced above. Railroad mortgages and investment shares were irregular, but generally higher. We give the closing quotations of governments below.

The stock market has been irregular, but active, first declining and then recovering. The principal dealings have been in Erie, Wabash, Lake Shore, Michigan Central, Western Union, Iron Mountain, Delaware, Lackawanna and Western, New Jersey Central, Kansas and Texas and Hannibal and St. Joseph. We give below the closing quotations of active shares.

The bank return shows a decrease of \$229,100 in reserve, which now stands at \$311,800 deficiency, against \$10,502,250 excess at this time last year, and \$7,376,575 at the corresponding period in 1877. The loans show a gain this week of \$1,805,300; the specie is up \$1,992,700; the legal tenders are decreased \$1,535,800; the deposits other Sash Lifts, Sash Fasteners and Cupboard than United States are up \$2,744,000, and the circulation is increased \$151,800.

The following is an analysis of the bank Irons and Steel Spring Tongs, Scandinavian totals of this week compared with that of or Jail Padlocks, and a good line of Japanned

last week:				
Loans Specie Legal t'nd'rs Tot, reserve. Deposits Reserve re-	37,682,600	Nov. 1. \$271,238,600 29,675,300 28,615,900 58,291,200 234,412,000	Com Inc. Inc. Dec. Inc. Inc.	1,805,300 1,992,700 1,535,800 456,900 2,744,000
quired Deficiency	57,917,000 82,700	58,603,000	Inc.	686,000

Circulation. 22,448,700 22,600,500 Inc. 151,800 The foreign trade movements at the port of New York since our last issue, so far as reported, are shown in the following tables:

IMPORTS.

For the week	ended No	ovember 1	*
Dry goods General mdse	1877. \$854,391 4,778,425	1878. \$x,3x7,652 4,753,548	
fotal for week. Prev. reported	\$5,632,816	\$6,071,200 237,716,345	\$6,279,157 268,517,600
Since Jan. 1	1976,568,516	\$243,287,545	\$374,706,757

Included in the imports were items of merchandise valued as follows: Quantity, Value.

Brass goods	٠.	0				- 3	Soc
Bronzes	0.0		0	0 1	5	01	5.95
Chains and Anchors	0 1				+3	15	1,81
Copper		0.0					10,54
Cutlery		0	0		1	ls	18,57
Gas flxtures		0	a			.3	1,07
Guns	٠.	o	0	0.		86	13.33
Hardware		0 -			5	14	2,47
Iron, pig, tons				I,	,60	15	31,66
Iron sheet, tons					IC	16	13,94
Railroad bars	0 0			5,	62	X	30,00
Iron, cotton ties	0 0	٠	٠		94	19	41
Iron ore, tons				I,	,35	55	2,81
Iron, other, tons				3	, 32	15	57.28
Lead, pigs	0 1				49	5	2,70

	Saddlery. 5 Steel 2,300 Spelter 56,000 Silverware 5 Tin, bxs 15,496 Tin, bbls 22 Tin, 3,035 8labs 269,575 Wire 314	388 11,079 2,494 171 81,333 1,775 40,308 2,346
	EXPORTS OF SPECIE.	
-	For the week ended November 1 :	
8	Total for the weekPreviously reported	\$3,775,862 54,712,689
	Total since Jan. 1, 1879	58,488,551
	Government bonds at the close quoted as follows:	se were
y di fi na ee	Bid. U. S. 6's 1880 registered 105/6 U. S. 6's 1880 coupon 105/6 U. S. 6's 1881 registered 105/6 U. S. 6's 1881 registered 105/6 U. S. 5's 1881 registered 103/6 U. S. 5's 1881 registered 103/6 U. S. 5's 1881 registered 103/6 U. S. 4'5's 1891 registered 103/6 U. S. 4'5's 1891 registered 103/6 U. S. 4'8 1907 cegistered 103/6 U. S. 4'8 1907 cegistered 103/6 U. S. Currency 6's 1895 122/6 U. S. Currency 6's 1895 123/6 U. S. Currency 6s 1896 123/6 U. S. Currency 6s 1898 123/6 U. S. Currency 6s 1898	Asked. 105 % 105 % 106 % 102 % 102 % 102 % 105 % 102 % 106 % 102 % 104 % 105 % 105 % 106 % 102 %
1	The following were the closing que of active shares:	otations
•	Did.	Asked.

8. Currency os 1899123%	-	Round " " " " 35
The following were the closing que	otations	Taps for Machine Screws
active shares:		Stove Bolts 50
Bid.	Asked.	Sink Bolts 50
on and Terre Haute 15	-	Pointed Wires 50
" Pref 35%	10	Tapped Nuts
nerican District Telegraph 71	36	Hand Rail Screws 4000 1
antic and Pacific Telegraph 42	72	Coach Screws (by the keg, 150 lbs.) 5
ston Air Line Preferred 50%		With special additional discounts for large
nada Southern	50%	quantities.
nton	75 59	*
., Chicago and Indiana Central 17%	173/4	Terms, cash 30 days. Freight prepaid to New York, Boston, Philadelphia and Baltimore, and
v., Col., Cin. and Indianapolis 70	78	on Rivets to principal points on or east of Missis
icago, St. Paul and Minn 45%	4656	sippi River. Except on Rivets, freight is not pre
cago and Alton 98	99	paid to other cities than above mentioned, but wil
. Pref 111	99	not exceed rates from New York City. Prices no
esapeake and Ohio 14	141/6	guaranteed, and orders are accepted subject to
" 1st Pref 22	23	rates ruling at time of shipment.
" 2d Pref 16	17	
aware, Lack, and Western 8756	873/4	Soliciting your orders, which shall have
aware and Hudson Canal 76%	7634	our best attention, we remain yours, very
press—Adams106	106%	respectfully, American Screw Company.
" American 57½	5834	
" United States 50 Wells, Fargo & Co 102	51	PHILADELPHIA PATTERN TIRE BOLTS.
	X04	Revised List, November 1, 1879.—Per 100.
Pref	40%	Length. 3-16 In. 7-32 In. 1/2 In. 3-16 In. 3/4 In.
Frei 03%	6434	12 1gen. 3 to 11. 732 th. 74 th. 3 to 11. 78 th.
nnibal and St. Joseph 38%	39	1 Inch \$1.50 \$1.50
nois Central	65	x34 " 1.50 x.50 \$1.85
., Cincinnati and Lafayette 11	9734	12 " 1.50 1.50 1.85 \$2.24
nsas Pacific	8334	134 " 1.50 1.50 1.85 2.32
nsas and Texas 20	2078	2 1 1.55 1.55 1.85 2.41 \$3.90
te Shore 99%	9956	214 " 1.60 1.60 1.85 2.50 3.30
usville and Nashville 76	76%	236 " 1.65 1.65 1.85 2.58 3.40
higan Central94	94%	234 " 1.70 1.70 1.02 2.66 2.50
ris and Essex1001/	100%	3 " 1 75 1.75 2.00 2.74 3.60
pile and Ohio	24	356 " 1.80 1.80 2.08
hville and Chattanooga 6x	69	3 4 1.85 1.85 2.16 2.90 1.80
v Jersey Central 77	77%	4 " 9.30 3.06 4.00
thwest	903/8	456 " 3.22 4.90
thwest	104	5 4.38 4.40
thern Pacific35%	35%	556 4.60
" Pref sol	60	6 " 4.80
o and Mississippi	2736	The state of the s
o and Mississippi	5834	Philadelphia Pattern, 1/2-inch Diameter, \$1.50 per
ific Mail	3636	80,
ama	175	BAY STATE TIRE BOLTS.—Per 100.
cksilver		

2.90 3.06 3.22 3.38 Ohio meter, \$1.50 per 1/4 Inch. 16 Inch. 36 Inch. Rock Island and Pacific St. Louis and Iron Mountain St. Louis Kansas City North St. Louis and San Francisco 314 Standard Sutro Tunnel. Union Pacific. Wabash.

The Tack Manufacturers' Association

1% inch cir. and upwards... 12 thread, or % inch diameter... 6 and 9 thread, or % and 5-16 diameter.

Pattern" and "Bay State" Tire Bolts.

Price List, and changed our discount from

Withdrawing and cancelling previous quotations at variance from the following, we

Discount from List Prices.

Burrs Philadelphia Pattern Tire Bolts, new Philadel-phia List

at present quote on goods in stock:

Bay State Tire Bolts, Common List... Flat Head Iron Machine Screws....

PROVIDENCE, November 1, 1879.

Hay Rope, 2, 3, 4 or 5 thread Tarred rope and Lath Yarn.

70 per cent, to 65 per cent.

have adopted a revised price list of Shoe Nails, &c., which went into effect on the 31st ultimo and which will be found below. Although the season has arrived when it We print also their revised discount sheet, is usual to expect a great falling off in busito apply to the Hardware Tack List of the same date, which is exactly the same as Fire Sets, Fenders, &c., will be net list.

Hardware Tack List of May, 1878, exceptness, we have still to report the market for all descriptions of seasonable goods in Gen-Hardware Tack List of May, 1878, excepting that the price of Brush Tacks is inserted dition. The fluctuations in values during the in the new list, and the note at foot of list week have not been so numerous as of late, stating the " price for any of the above kinds, and the market wears a more settled aspect tinned not specified," is 8 cents per lb. on the new list.

LIST OF PRICES OF SHOE WALLS, ETC.

The demand for foreign Hardware is reported active, and orders for importation are numerous. No changes in prices of foreign goods reported.

The demand for Nails continues light, but at the same time sufficient to prevent any accumulation of stocks. We quote 10d. to fold \$3.60 net for round lots.

Zinc Shoe Nails 1;3
Zinc Shank Nails 1;3
Zinc Shank Nails 1;7
Diamond Head Zinc Nails 20
Copper and Brass Shoe Nails 38
Copper Gimp Nails or Tacks 350
American Iron Hungarian Nails, 2-8 and 2½-8 in, 10½c, per lb.; 3-8 and 3½-8 in, 9½c.; 4-8 in, and longer, 9c.

Brackets, Mortise Bell Cranks, Polished Fire

ume 5, 1879, showing, in addition to the revisions in discounts, the changes in list Alfred Field & Co., general agents-have issued a circular under date of October 20.

Owing to the greatly increased cost of raw material and other supplies, we hereby advise you that all previous quotations are withdrawn. We this day advance our fac-tory rates to the following, which prices we

Western Files......dia. per eent., 25 In view of the continued upward tendency of the price of everything entering into the cost of manufacturing Files, we hold the above prices subject to change without further notice, and all unfilled orders subject to

16.; o'8 & 0'8' o in., 150; '7 in., 140; o'8 in. and longer, 136.

Concave Head Nails, Brass and Copper, per pound. (Concave Head Nails, Patent Copper Plated (Patented August 30, 1870,) per pound. (Concave Head Nails, Brass and Copper, 133%)

Concave Head Nails, Patent Copper Plated (Patented August 30, 1870,) per pound. (Coltness 6d. higher and Glengs Coltness 6d. higher and Coltness 6d. higher 6d. higher

per M.
B Long Eyelets, Black and White, I-M. round boxes, per M.

Any of the above kinds, tinned, not specified, 5¢ per pound advance on above prices.
Terms cash, payable in funds current in Boston and New York.
The above prices subject to change without previous notice. The American Screw Co. have issued, under date of 1st inst., the following revised discounts and price list for "Philadelphia

SHOE FINDERS' LIST DISCOUNT SHEET. To the Hardware Trade: In consequence of the advanced prices for Iron, we have this day revised our Philadelphia Tire Bolt

OCTOBER 31, 1879.

In consequence of the increased advance in the prices of metals, we now quote prices for Shoe Nails, Shoe Tacks, &c., as per our for Shoe Nails, Shoe Tacks, &c., as per our new Shoe Finders' list of this date, with the following cash discount: 10 per cent. discount for cash will be made, provided the account for cash will be made, provided the account is paid on or before the 20th of the month following that of the sale; for bills not so paid, sight drafts will be made on the first day of the following month. The above discount subject to change without notice.

DISCOUNT SHEET Adopted by the Tack Manufacturers' Association, October 31, 1879. To apply to the Hardware List of same date.

Swedes Iron Tinned Tacks.

Common Iron Tinned Tacks.

Common Iron Tinned Tacks.

So and Tupholsterers and Swedes Iron Tacks, all kinds.

Gimp and Lace Tacks.

Swedes Iron Hungarian Nails.

Cigar Box and Chair Nails.

Basket Nails.

American Iron Cut Tacks.

Copper Tacks and Nails.

Leathered Carpet

Finishing. Trunk and Clout Nails.

Brush Tacks.

Balance of list.

Terms. cash. The shove discounts which the Per cent

Terms, cash. The above discounts subject to change without notice. We have received the following:

THE DOUGLAS AXE MFG. Co., (
BOSTON, NOV. 4, 1879.

DEAR Sirs: We are compelled to make a further advance in the price of Hunt's Axes, viz., to \$9.50 per dozen. Discount on tools, 20 per cent. Yours respectfully, D. D. Dana, Treas.

The Francis Axe Co., Buffalo, N. Y., advise us of an advance of \$1 per dozen on their "Diamond Edge" and other brands of

Axes, which took effect October 1st. The Sash Weight Manufacturers of this city and vicinity held a meeting October 28th, when the following prices were agreed upon, to take effect November 1st :

SASH WEIGHTS. In soo lb. lots or more. For all Dumb-Waiter and extra size Sash Weights, 1/2 cent per lb. advance over the above prices. Terms, net cash, 30 days. Regular Standard sizes to run from 2 to 30 To the wholesale trade a discount

from the above price is allowed. We have received the following circulars:

OFFICE OF BLACK DIAMOND FILE WORKS, PHILADELPHIA, PA., Nov. 4, 1879. To the Hardware Trade.—From this date our factory rates for Black Diamond Files will be discount 25 per cent., which price we expect the trade to maintain.

Respectfully yours, G. & H. BARNETT.

First Avenue, 27th to 28th Street, New York, November 1st, 1879.

DEAR SIR: Owing to a further advance in price of Copper and Brass, our prices from this date of our Polished Brass Goods,

MANHATTAN BRASS CO.

Norwich, Conn., October 22, 1879

DEAR SIR: -Owing to the great advance in the cost of stock, and the large amount of orders for Staples now on our books, we orders for Staples now on our books, we shall be obliged to decline any further orders for Boardman's Barbed Blind Staples, except at such prices as may be in force at the time we are able to ship the goods. We shall meet the market in price at all times; but, owing to the uncertainty in the Iron market at present, it is impossible to keep a fixed list. We shall be pleased to receive any orders to be filled at the earliest possible date, and at the lowest market price.

Solicting your orders, we are. Solicting your orders, we are

Respectfully yours, C. B. ROGERS & Co. American Iron Hungarian Nails, 2-8 and 25-8 in, 9%c.; 4-8 in, and longer, 9c.
Charcoal Iron Hungarian Nails, 2-8 and 25-8 in, 11c. per lb.; 3-8 and 35-8 in, 10c.; 4-8 in, and longer, 95c.
Swedes Iron Hungarian Nails, 2-8 and 25-8 in, 115c. per lb.; 3-8 and 35-8 in, 10c.; 4-8 in, and longer, 105c.
Swedes Patent Copper Plated (Patented Aug. 30., 1870), 2-8 and 25-8 in, 19-6 per lb.; 3-8 and 35-8 in, 125-6; 4-8 in, and longer, 180.
Swedes Patent Copper Plated (Patented Aug. 30., 1870), 2-8 and 25-8 in, 19-6 per lb.; 3-8 and 35-8 in, 115c.; 4-8 in, and longer, 180.
Oval Head Shank Nails or Tacks, 2-8 and 25-8 in, 115-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 115-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 115-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 115-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 19-6 per lb.; 3-8 and 35-8 in, 18-6; 15-9 in, 18-6 per lb.; 3-8 and 35-8 in, 18-6 per lb.; 3-8 and 35 Buck Brothers, Millbury, Mass., illustrate,

b. or ¼ b. papers.

Steel Shoe Nails, all sizes, nc. per lb., in lb. or ¼ at Holyoke, Mass. Their salesrooms in this city are at Nos. 84 and 86 Chambers street.

James E. Halsey, of the late firm of Day & Halsey, has connected himself with the well-known house of A. Baldwin & Co., New Orleans. Mr. Halsey is well known to the Hardware Trade, and has the good wishes of many friends.

BRITISH IRON MARKET.

[Special Report by Cable to The Iron Age.] LONDON, Wednesday, Nov. 5, 1870.

Scotch Pig.-The depression which has ruled the market for the past three weeks gave way during the week, and the downward movement of prices received a check The market is now reported strong and prices firm. There is very little change in quotations from those reported last week. Gartsherrie and Eglinton being 1/lower, Coltness 6d. higher and Glengarnock unchanged. Following are present prices:

Manufactured Iron-Is firmer and a fair amount of business is doing. We continue our quotations of last week unchanged / @ £8 for Best Staffordshire Bars.

Rails.-The market is active and the de mand good. Prices are reported firmer, though no change is made in our quotation of Welsh, viz., £4. 15/@ £5. 10/.

IRON.

American Pig.-The market for Pig metal is decidedly weaker than at our last writing, and buyers seem to be few; such as there are manifest little disposition to take advantage of any of the cheaper Iron in second hands known to be on the market. No large transactions have come to our notice during the week. We hear of the sale of you tone No T X Crane (an outside lot) at \$28.75. We quote: Foundry No. 1, \$27@ \$29; Foundry No. 2, \$26 @ \$27; Gray Forge, \$26 @ \$27.

Scotch Pig.-We hear of sales of 500 tons Glengarnock and 300 tons Eglinton, both on private terms. The arrivals since our last, which have been considerable, have for the most part gone into store. Several thousand tons now on the way here, it is expected, will follow the same course, as the business is evidently being overdone. There is a good deal of Middlesboro' Iron pressing on the market, but it seems to be hard stock to dispose of. It is offered at \$23. We quote Eglinton, \$26; Coltness, \$28 @ \$29; Glengarnock, \$27; and Gartsherrie, \$26.

Rails.-We hear rumors of further heavy transactions in Steel Rails for next year's delivery at very full prices, but particulars are withheld. We quote Steel, \$58 @ \$60; and Iron, \$49 @ \$52.

Old Rails .- About 5000 tons of Old Rails were sold during the week on private terms. We continue to quote \$31.50 @ \$32.50 here.

Scrap.-No transactions in Scrap are reported. We quote No. 1 Wrought, from yard, nominally \$35 @ \$37.

METALS.

Copper.-There has been little doing during the week, sales not exceeding 300,000 lbs. 21¢ @ 21¼¢ is the price bid for Lake Superior, but 21½ is asked. Baltimore may be quoted within the same range. London cables £72 for Best Selected, and £66 for Chili Bars; it has therefore recovered £1 from the recent decline. As for the export of Copper from the United States, we beg to remark that in October the same did not ex-ceed 200,000 lbs., about as much as was imported during the same month. Up to Nov. 1, the export last year was 11,500,000 lbs. against 13,500,000 during the correspond-ing period of this year. As, however, this month the shipments will not exceed 300,000 lbs., against 800,000 lbs. in November, 1878, and a further decrease is expected in the ming month, our aggregate export will larger this year than it was in all Production has been about the same, but, on the other hand, consumption has in-creased about 3,000,000 lbs. to 4,000,000 lbs. since August. One important trade alone, since August. that of cartridge manufacture, has declined, compared with last year. Late news from Late news from West Coast states that the war continues, despite the naval battle lost by the allies off Mejillones, in October, referred to in our previous reports. An important encounter on shore was imminent. "London, Oct. on shore was imminent. London, Oct. 25.—The charters having been announced last Monday as 2100 tons for the first fortnight of the present month, it was evidently taken up by speculators as a good sign, and they advanced the price of Chili bars to £67. 10/, but the rise being in no way responded to by buyers, the market soon displayed a drooping tendency and prices dwindled down to £65. 10/@ £66, but since which a slight rally has occurred, and £66. 5/@ £66. 10, cash, and £66. 15/@ £67, forward, has been paid." The combination prices of Manufactured Copper were advanced recently. We quote: New Sheathing Copper, 28¢; Braziers, 30¢; Bolts, 30¢, and Bottoms, 33¢.

Tin.—London on Thursday of last week Broken..... gave way to £86 @ £87 with Straits Tin, but this decline was short-lived, the market promptly recovering to £55, where it stood at last accounts, while Singapore again cables \$29.50, with an exchange of 3/11. The deliveries in England and Holland in October were 3000 tons, which is an unprecedentedly large quantity, the average being about 1200 tons less. This great excess is undoubtedly due to the largely in-creased manufacture of Tin Plates in England, and the knowledge of these extraordi nary deliveries to consumption was, we pre-sume, mainly instrumental in righting the market immediately. Shipments from the Straits to the United States during the latter half of last month were 700 tons. The Brid arrivals since our last report have been about Egg 4000 slabs Straits and 3170 slabs Billiton. Sales have been 200 tons on the spot and to arrive, the latter at 22 1/2 @ 23¢ for Straits for December and January arrivals, while November shipments at one moment sold as low as 22¢. We quote, at the close, large lines Straits and Australian, 24¢; Billiton, 24¢, "to arrive;" English Refined, 24¢; ditto Common, 22¢ @ 22½¢, and Banca, 25¢. "London, Oct. 25.—Since our last, this market has been well maintained, and prices are now nearly about the same as quoted at the end of last week. There have been from time to time some sharp fluctuations, and as high as £96 per ton has been paid, nevertheless the market having been strong it has kept prices from declining to any great extent, in spite of there being at times some heavy quantities placed upon the market. The price having undergone so little change when sellers of 500 or 600 tons were ridding themselves of their stock, is but reasonable to expect that for the

have made them desirous to realize without de-For Tin Plates the market here is quiet. so far as large lots are concerned, but quite active otherwise. Stocks are still very low. The lull which was perceptible a few days since has passed by, and abroad the feeling since has passed by, and abroad the feeling is also quite strong, prices having again advanced somewhat. They cable Coke Tin 24/@ 25/, and Charcoal, 28/@ 30/. We quote at New York, at the close, large lines, ordinary brands, per box: Charcoal Bright, \$8; ditto Ternes, \$7 @ \$7.25; Coke Tin, on the spot, \$7.50, and to arrive, \$7.25; ditto Ternes, \$6.50. ditto Ternes, \$6.50.

Lead .- The market for Common Lead appears to be recovering somewhat in consequence of sales of 800 tons of Selby Lead at 5¢, and later transactions aggregating 200 tons at figures reported to be a shade higher. We quote $5\frac{1}{2}$ ¢ @ $5\frac{1}{2}$ ¢, the latter being asked by some holders. Refined Lead is held at 5 % ¢, and we learn that sales have been made at St. Louis on the basis of 5¢, which would be equal to 5½¢ in New York. Messrs. Koch & Vlierboom report from Rot-terdam, October 21, that the market there was very active and rising. Stolberg, at the close, 10.62½ gui the 50 kilos. was asked, while of guilders the 50 kilos. was asked, while other sorts, after bringing 10.25, were not obtainable for less than 10.37½ when the mail left. "London, October 25.—This metal is in fair demand at slightly higher prices than were realised last week. Common pigs are quoted up to £17. 5/ per ton, at which price sellers are very firm." Manufacturers' prices are unchanged. We work to the sellers are unchanged. We other quote: Bar Lead, $6\frac{1}{2}$ ¢; Pipe, 7¢; Sheet, $7\frac{1}{2}$ ¢; Tin-Lined Pipe, 15¢; No. 1 Solder, 14¢, all less 10 % to the trade.

Spelter and Zinc .- Stocks are moderate ere and at the West, and the amounts now delivered by smelters are principally made on old contracts. The market remains firm at 63/4¢ @ 63/4¢ for Common Domestic, nom inally, and Bergenport from Lehigh Ore, 10¢. "London, October 25.—This metal has increased in value since our last issue, and sellers display little or no eagerness to press sales." American Sheet Zinc is worth

Nickel-Remains in moderate request at the current price of \$1.40 for American.

Antimeny.—The demand is not active, and the price has declined somewhat Hallet is quoted 1654¢, and Cookson, 18¢.

COAL.

Trade during the past week has been good, and the market seems to be in a decidedly more healthy condition than it was the week previous. The demand for manufacturing Coal shows a very consider-able falling off, and that which comes to the shipping points is somewhat slow of sale For domestic sizes the market is good. As usual in the month of November, there is a brisk demand for Coal for points where navigation closes early. The demand from these places has been for the past few days very large. It is even reported that some companies and wholesale dealers have, in the past week, disposed of all of the Coal that they have to sell during the month. That large sales have been made within the last few days is certain. One favorable feature of the market is the fact that the prices of the sizes most in demand vary but little from the printed quotations. In fact, the quotations may be said to be the actual prices. This is an advantage, as it puts all buyers upon the same footing, and orders from a distance come in more freely than they do when prices are shaded according to the skill of the purcha-ser. The amount of Coal coming to market is considerably less than it has been in the past. This is due to a variety of causes past. This is due to a variety of causes, and has no doubt some influence in keeping the prices at their present point. It is reported that much of the domestic tonnage is diverted to the West. Prices for the Lackawanna Coals range about as follows:

5	Broker \$3.50 Stove \$3.50 Egg3.85 @ 3.90 Chestnut3.25 @ 3.30	Iron.
e d	which are Mr. Meeker's quotations. Some parties have sold short on Pea and do not quote. Lehigh Coal is quoted at:	Baring Bros. & Co. Scrap, tons, 215% Bowker J. Scrap, tons, 220 Brown Bros. & Co.
-	Lump \$4.00 Stove \$3.50 Broken 3.35 Chestnut 3.10 Egg 3.35 No.2 2.00	Swedish iron, bars, 1181 Bruce & Cook, Sh't iron, bdls., 1000
9	Whitney, McCreary & Co. quote:	Field A. & Co. Flange rails, 6880
2 8	Lump. \$4.00 \$tove. \$3.50 Broken. 3.25 Chestnut. 3.50 Egg. 3.25 Chestnut. 3.50	Henderon Bros. Pig, tons, 100 Irwin Richard & Co.
9 9 9	This is for Buck Mountain. The Chestnut price is a little high, perhaps, but this is easily accounted for by the fact that only a small quantity of this size is available at	Pig, tons, 265 Lee Jas. & Co. Pig, a quantity Pig, tons, 100 Linden & Meyer, Pig, tona, 198
• 1	the managet mouseur	Manual Wim D

price is a little high, perhaps, but this is easily accounted for by the fact that only a small quantity of this size is available at the present moment.
Scranton is quoted f. o. b.:

Broken... Pittston Coal is at present all in the hands of contractors, and, as is usual at this season of the year, is scarce, owing to the upriver demand, which is active until the close of navigation. We hear of the following quotations :

These prices are f. o. b. at Newburgh, with the freight to New York at 50¢ per ton in company boats.

A considerable arrival of vessels last week checked the advance in freights apparently, and at the same time greatly eased shippers Yesterday there was a large at this port. number of arrivals, and it is quite probable that the demand for vessels will not be so sharp in consequence. Freights remain tations. In the harbor we quote from 30¢ @ 35¢, which is a falling off. Boston is \$1.50 @ \$1.65. New Haven and New Lon-\$1.00 @ \$1.05. New Haven and New London were quoted yesterday at from 95\$ @ \$1. Portland and Bath range at from \$1.45 @ \$1.50, and discharged. We quote Providence at \$1.05 @ \$1.10.

OLD METALS, PAPER STOCK, &c.

A reaction has set in in the Old Metal

The purchasing prices offered by dealers for Old Metals are as follows: per D. \$0.13

Copper, heavy... Copper Bottoms Yellow Metal.... rellow mean... Brass, heavy...... Brass, light Composition Lead, solid... Tea Lead... Zinc.... Pewter, No. 1... Pewter, No. 3. Wrought Iron Light do..... Stove Plate ... Machinery do.

The prices current for Rags, &c., are follows: White, No. 1... Mixed Rags Gunny Jaggnig Jute butta Kentucky bagging Book Stock. Newspapers Waste Paper and Scraps. Kentucky Bale Rope Tarred Shaking.

IMPORTS

Of Hardware, Iron, Steel and Metals into the Port of New York, for the Week ending Nov. 4. 1879

Bars, 4267
Ore, tons, 282½
Nevada Bank,
Pig, tons, 20
Weiner & Holland,
Pig tons, 20
Whitney A. R.
Bars, 194
Williamson Jas. & Co.
Pig, tons, 100
Order,
Bars, 11,076
Bundles, 180
Cast iron, cs., 200
Cut hoop iron,
bdls, 180
Fish plates, bdls, 270
Fish plates, bdls, 270
Fish plates, bdls, 270
Fish plates, bdls, 270
Finge rails, 4079
Loose iron, a lot.
Old flange rails and
scrap, a quantity.
Old rails, 1408
Old rails, pcs., 5182
Old rails, pcs., 5182
Old rails, pcs., 596
Old rails, tons, 830
Pig, tons, 3984
Rails, 3373
Railway bars, 2266
Scrap, a quantity
Scrap, cwts., 1902
Scrap, tons, 194
Sheet iron, bdls, 2275
Spiegeleisen, a quantity
Spiegeleisen, a quantity Hardware. Berbeeher & Co. Ironware, cs., 4 Bloomfield J. C. & Co. Mach'y, pkgs., 35 Brown Bros. & Co. Wire coils, 1050

Brown Bros. & Co.
Wire coils, 1059
Boker Hermann & Co.
Hdw., bbls., 500
Hdw., cs., 145
Hdw., cs., 145
Hdw., cs., 24
Copcut W. H. & Co.
Machinery, cs., 1
Dale John G.
Wire rope, cks., 21
Folsom H. & D.
Guns., cs., 25 Guns, cs., 3
Friedman & Lauterjung

Mdse., pkgs., 4
Graef Cutlery Co.
Mdse., pkgs., 3
Hermann H. & Co.
Mdse., pkgs., 39
Heuermann Wm.
Machinery, Cs., 4
Iron goods, cs., Livingstone W. & F. Grindstones, 63 Merchants' Dispatch Co

Merchants' Dispatch C Machinery, cs., 14 Montague W. W. & Co. Hdw., cs., 19 Gun caps, Cs., 6 Gun wads, cs., 4 Mulholland & Hickox, Machinery, cs., 12 Oselchlager Bros. Scientific inst., cs., Overton & Co. Spiegeleisen, a quar tity Spiegeleisen, tons, Wire rods, pkgs., 76 Steel. Brown W.
Packages, 149
Prosser Thos. & Sons,
Forgings, 47
Wolf R. H. & Co.
Bundles, 31 Cutlery, cs., 1 ogers H. Mdse., pkgs. Idse., pkgs., 5 verling, Daly Gales Order, Bundles, 137

Cases, 2 Casks, 3 Old steel, tons, 15 Rods, bdls., 25

Metals.

Guns, cs., 56 Arms, cs., 6 huyler, Hartley & Graham, Graham,¹
Arms, cs., z
Mdse., pkgs., 5
Thompson C. M.
Wire rope, cks., 29
Tomes F. & Co.
Hdw., cs., z
Wiebusch& Hilger Hdw,

Baring Bros. & Co.
Tin plates, bxs., 730
Tin, slabs, 491
Bruce & Cook,
Tin plates, bxs., 1865
Cortis R. J.
Tin, bxs., 012
Franklyn C. G.
Tin plates, bxs., 863
Tin, ingots, 512
Freeborn W. A. & Co.
Yellow metal sh'thing, cs., 60
Hendricks Bros.
Tin, ingots, 600 Wolff, H. & Co. Cutiery and hdw., Mdse., pkgs., z Wolf R. H. & Co. Wire, pkgs., 4548 Wire, pkgs., 4543 Order, Anvils, 78. Bolte & nuts, cs., 80 Chains, 2ks., 37 Coal, tons, 406 Hdw., cs., 10 Machinery, cs., 32 Tinware, pkgs., 15

Iron.

ing, cs., oo
Hendricks Bros.
Tin, ingots, 600
Meissner, Ackerman &
Co,
Copper, ingots, 7172
Morgenstern F.
Leaf metal, cs., 3
Netherland Trading Society,
Tin, ingots, 3200
Nevada Bank,
Tin plates, bxs., 742
Phelps, Dodge & Co.
Tin plates, bxs., 742
Phelps, Dodge & Co.
Tin plates, bxs., 17
Willet & Hamilin,
Sheathing metal,
CS., 120
Order, Baring Bros. & Co. Scrap, tons, 215% Bowker J. Scrap, tons, 220 Brown Bros. & Co. Swedish iron, bars,

CS., 120 Order, Copper, cks., 138 Lead, pigs., 427 Old metal, pkgs., 3 Raw cop., cks., 18 Spelter, plates, 2079 Tin, bbls., 5 Tin, ingots, 293 Tin plates, bxs., 23,-480 Tin, slabs, 2818

PHILADELPHIA.

Office of The Iron Age, 220 South Fourth St. | PHILADELPHIA, November 4, 1879.

PHILADELPHIA. NOVember 4, 1879. I Pig Iron.—The market has softened considerably during the week, and prices are difficult to quote. As a rule buyers can probably do from \$1 to \$2 per ton better than a week ago, but the scarcity of stock for immediate delivery prevents anything like a serious break. In fact, some brands for immediate delivery prevents anything like a serious break. In fact, some brands are firmly held at the full prices current two weeks ago, while others which have recently gone into blast, or increased their output, find some difficulty in keeping pace with their production. There is a fair margin for profit at present prices, for which reason some parties seem disposed to yield a little some parties seem disposed to yield a little rather than lose a sale. The receipts of foreign Iron, too, has a depressing influence, and, unless for such brands as parties have been accustomed to using, the tendency of the market is rather in buyers' favor. The future is difficult to predicate; some, in view of the experience of the past five years, seem to think the decline will be serious and in proportion to the recent rapid advance, which is said to have been entirely unwarranted. The majority, however, take a more cheerful view, and anticipate a heavy demand during the next two months. Contracts made early in the year, which were expected to cover the requirements of present prices will be well maintained, if not advanced, for if the rise were not placed upon a substantial basis so large a quantity would have alarmed ordinary speculators and quotable change in prices.

It is but reasonable to expect that for the market since our last writing, and Iron and Ison quotable them have orders belowed to last writing, and Iron Rails.—Prices are again firmer, with sold. Some of them have orders below sufficient to absorb their entire product unbuying therefore, it is thought, will be a would have alarmed ordinary speculators and quotable change in prices.

Iron Rails.—Prices are again firmer, with sold. Some of them have orders belowed sales at \$55 for light sections. There seem to be strong indications of higher prices in til the close of the year, and very few care that the total area to the section of them have orders belowed the sales at \$55 for light sections. There seem to be strong indications of higher prices in til the close of the year, and very few care the contract of the sales at \$55 for light sections. There seem to be sufficient to absorb their entire to the tild the sales to the sales at \$55 for light sections. There seem to placed to contract to the sales to the sales at \$55 for light sections. There seem to prices are again firmer, with no sufficient to absorb their entire to contract to the sales at \$55 for light sections. There seem to place to the sales at \$55 for light sections. There seem to prices are again firmer, with no sufficient to absorb their entire product unbounced for light sections. There is a set to contract to the sales at \$55 for light sections. There is a set to contract to contr

soon be demonstrated, and if the latter theory is correct the market will soon show it. There has been more activity since the than was noticeable a few days ago. Mill Irons are very scarce, and command pretty nearly the extreme rates quoted three or four weeks ago. Foundry Irons are more plentiful, and prices are very irregular some favorite brands have time time to the week have not been important, for the reason stated above, but \$50 @ \$52 for heavy sections, and \$53 @ \$55 for light, may be regarded as fair market prices at this writing.

Old Rails week at \$31, while others less known and more urgently offered, have been sold as low as \$28. Scotch Iron is a trifle weaker, but we have not heard of any sales in quantity. There is very little on the spot, and so long as consumers can supply their requirements with American Iron, their is not much desire to take hold of foreign. Prices are so near together, however, that a change in the British market could scarcely fail to have an immediate effect on this side. In the meantime importers are endeavoring to push sales, and have marked prices down about a dollar per ton without leading to much business. We quote as extreme figures: No. 1 Foundry Iron, \$28 @ \$31; No. 2 and Gray Forge, \$27 @ \$29; Scotch Iron, \$25 @ \$29, according to brand. North of England ditto, \$22 @ \$25

Muck Bars .- The market is somewhat easier, and sales during the week have been made at \$47, at which figure buyers are not disposed to anticipate their requirements. Holders ask \$48, and it is not likely that extra quality could be obtained for less than

Blooms.-Stocks are light, and it is difficult to place orders. The following may be regarded as fair average quotations, viz.: Sunken Scrap Blooms (2464 lb), \$50 @ \$52; Northern Ore Blooms (2240 lb), \$47 @ \$40; best quality Charcoal Billets (2240 B), for wire and steel purposes, \$75 @ \$80; Bars, \$80 @ \$82.50; Sheet Iron Blooms, cornered (2464 B), \$70 @ \$75; Cold-blast Charcoal Plate Blooms, \$70 @ \$72.50; runout Anthracite, \$62.50 @ \$65.

their fullest capacity, and are still unable to keep up with their orders. There is not much doing in new orders for shapes for building purposes, but bridge work is very active, one contract having just been given out which will require 2000 tons in Baltimore a similar one for the West and a number of a smaller class. The advantage at present The advantage at present seems to be entirely among sellers, who have more business offered than they are able to accept. Angles may be quoted 3.6¢ @ 3.8¢ Beams, 4¢; Channels and Tees, 4.2¢.

Plate and Tank Iron.-We have heard of any heavy orders being placed, for the reason that manufacturers are already crowded with work and are unable to take crowded with work and are unable to take contracts for early delivery. There is no scarcity of buyers, however, and those whose needs force them into the market have great difficulty in placing orders. Prices are very firm, and the following may be regarded as fair average quotations: Tank, 4\$\psi\$; C. No. 1, 4\$\%\psi\$; C. H. No. 1 Shell, 4.5\$\psi\$; Flange, 5.5\$\psi\$; Solid Fire-box, 6.5\$\psi\$; Best Bloom, 7\$\psi\$.

Sheet Iron.—The demand since the open-ing of the month has been more animated, and in addition to the extraordinarily heav business during September and October, the current month is not likely to show any falling off. Stocks are light and manufacturers are still pressed to keep up with the demand, and in many cases are condemand, and in many cases are considerably behind with deliveries. Prices are unchanged, and for small lots may be quoted as follows: Common Sheet, No. 20 to 23, 5.4¢ @ 5.6¢; No. 24 to 28, 5.7¢; Best Refined Sheet, No. 25 to 26, 5.7¢ @ 5.8¢; 28, 5.7¢: Best Refined Sheet, No. 25 to 28, 5.7¢ @ 6¢; No. 16 to 24, 5.7¢ @ 5.8¢; No. 25 to 28, 5.8¢ @ 5.9¢; Refined Plates or Blue Annealed, 5-16 to 16, 4.4¢; 17 to 19, 4.5¢; Best Bloom, 26 to 28, 7.5¢; 16 to 24, 7¢ @ 7.1¢; Best Bloom, 7.3¢. A Patent Planished, 11¢; B Patent Planished, 10¢; Best Blooms, Galvanized, 10 % discount, econd quality, 20 %.

Bar Iron.-There is still an active de mand, and manufacturers in many cases de-cline orders on the ground that they have already as much business on their books as they care to take for the present. The de mand is extraordinary, and as compared with the condition of business a year ago is almost incredible. All the mills are running full, many new ones have started up, but consumption is fully started up, but consumption is fully equal to the increased supply, and there fully appears to be no accumulation any-where. The demand comes from all classes of buyers, but the heaviest, no doubt, is from car builders, who are full of work, with additional orders on the market to employ them well into spring. The outlook is very encouraging, and there is every reason for anticipating a steady business at full prices. We quote: 3\$\phi\$ @ 3.2\$\phi\$, the former being a very exceptional rate.

Steel Rails.-The urgent demand has led o a sharp advance in prices, and sales during the week have been made at rates vary-ing from \$60 to \$65 per ton. The latter fig-ure was realized for upward of 10,000 tons, Western delivery, spring of 1880. There are plenty of buyers at \$60, but sales at this price may be considered quite exceptional. The market is very irregular, however, as some large lots bought at extremely low prices are held by outside parties, who can well afford to sell below manufacturers' prices. Several recent transactions have been of this character, and can scarcely be regarded as a fair criterion of the market. of terially lower than imported rails would cost. The advance, although large, is not in proportion to that in other departments of the Iron trade, and is said to be warranted by the increased cost of production. Indications favor still higher prices toward pring, and it is not likely that manufacadvancing figures. We quote \$60 @ \$65, according to location of mill, sales during

urgent, and as the mills are loaded up with business, many are compelled to decline fur-ther contracts for the present. Sales dur-

delivery. The recent decision in regard to the tariff on Steel Blooms, appears to have affected the demand for Old Rails. The opinion seems to be that if Blooms can be brought in at moderate prices, the Iron Rail mills will work on them, instead of Old Rails. If this proves to be correct there is no doubt it would have an important effect or values, but prices of Blooms in England are said to have reached a point, almost prohibitory, so that there is no immediate danger from that source. Supplies of Old Rails are running short, and although they are neglected for the time being, it is quite likely there will be a sudden change before long. As soon as the scare on Blooms is over the market will probably be more active. In the meantime sales have been at \$31 @ \$32, market closing rather tame.

Scrap Iron .- Business is less active, but there is no change in prices, sales being at \$22 @ \$24 for Cast, and \$34 @ \$36 for

Nails—Are firm and in good demand at \$3.60. Stocks are reported unusually small.

PITTSBURGH.

Office of The Iron Age, 77 Fourth Avenue, PITTSBURGH, PA., Nov. 4, 1879.

Winter has set in at last and in real ear nest; hard, freezing weather has been in order now for several days in succession, and it is feared that navigation will be crip-pled before long by ice. There has been very little river navigation since early in the season, only one coal boat freshet, and as a result the down river cities and towns Structural Iron.—The demand continues are almost bare of Pittsburgh coal, and cive and manufacturers are employed to prices there have more than doubled within the past few weeks. Not only is navigation important to our coal interest, but there are a great many manufactured goods, both here and at Wheeling and many other points along the river, that cannot be moved until there comes water, as in addition to the cost of transportation being cheaper by boat than by rail, some points to which these goods are consigned have no rail communi-

> Pig Iron.-The market for this most important article is in a very complicated con-dition, and the lull noted for several weeks past continues. Producers, in view of the enhanced cost of ores, coke, limestone, labor, &c., contend that prices instead of going back must go higher, and then the fact that the visible supply, not only here but throughout the West, is very much re duced, is favorable to their view of ter. Consumers, on the other hand, as a rule are "bearishly" inclined, especially those who have little or no stock and want to buy, and threaten, unless the price of native is reduced, to buy foreign Iron; in-deed, several of the mills here have bought of this foreign Iron within the past few weeks, one of them having contracted for 2000 tons. Some of this imported Pig has been tested here and turned out very unsatisfactory, some of those mills making the test averring that they would not have it at any price; but the recent purchases, to which reference is made above, are said to be of a much better quality and will answer for ordinary mill use, and what is still more important, can be laid down here from the seaboard at a cost of about \$2 per ton less than a similar quality of American. intimated in some quarters that it is not in very good taste for Pittsburgh mill owners, who are recognized throughout the country as strong advocates of a high protective tariff, to be buying imported Pig they claim the same right accorded to ers, to do the best they can, and to this they are certainly entitled. While they have not relaxed in their tariff proclivities in the slightest degree, if they can save a dollar or two per ton by buying foreign Pig, they intend to do so, and we do not see that any fault can be found with them for so doing. If American Pig cannot be sald in competi tion with the foreign article, the cost of pro-duction of the former will have to be reduced, or, on the other hand, the duty on the latter increased. This matter in the the latter increased. This matter in the course of time will rectify itself. There is a possibility, if not a probability, that prices of foreign, especially of the better qualities, will go up at the sources of supply, and we opine that foreign producers are just as anxious for remunera-tive prices as those of our own country. Bituminous Coal-smelted Irons may be quoted at \$30, 4 mos., for Neutral Forge and \$31, cash, to \$32, 4 mos., for Red Short. Coke Irons from native ores, \$20.50, cash, to for No. 1 Foundry. Sale of 1200 tons Nos. 2 and 3 Bessemer (Eastern) at \$33, cash; No. 2 and 3 Bessemer (Eastern) at \$33, cash; No. I Western Bessemer, in the absence of sales, may be quoted at \$35,4 mos. There is very little Iron of any kind offering from the Shenango or Mahoning Valleys, as the furnaces in those sections are all oversold, and furnacemen in the Anthracite region; are not disposed to make any concession what ever. Owing to the long-continued suspension of navigation, the stock of Hangin Rock Charcoal Iron is almost exhauste here, but there does not appear to be much call for it. It is expected that there will be some inquiry for Bessemer before this month is out, and it is not likely that American can be had below quotations, as producers appear to be very stiff.

Manufactured Iron.-There has been no important change in the situation durin the past week; rumors prevail that there has been an easier tone developed in the market, but your correspondent, after making considerable investigation, cannot discover any foundation for these rumors, excepting a lull in the market for the raw according to location of mini, sales during copting a full in the market for the raw, which has prevailed for some weeks. The transactions.

Iron Rails.—Prices are again firmer, with

having asked. Old Ca: Wrough net, \$4 \$45; W sale of V Coke. per ton, per ton, ales are figures, l that buye future de The adva creased c in the ma not be sur higher be and incr stock in advance ind, mor mind that a year; al mpared Petrole

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troleum, as not ye getting ubt fall velopment is during the velopment is during the vesselly come of the year precedented can see no just now.

future delivery at current rates. Some are positively refusing. Merchant Bars are still quoted at 3\$\sigma\$, 60 days, 2\$\sigma\$ off for cash. Sheet, 4.5\$\sigma\$ for No. 24. Plate Iron, 3.8\$\sigma\$, with some mills declining to sell under 4\$\sigma\$. Skelp Iron.—The mills are nearly all full of orders for immediate delivery, but are book-ing orders for December at 3.5¢ and 3.6¢.

Nails.-Some firms report an increased Nails.—Some firms report an increased business the past week, and we believe it is better with nearly all of them than ordinarily at this season of the year. Prices firm, but unchanged, at \$3.40, 60 days, 2 % off for cash, and an abatement of 10¢ % keg on lots of 200 kegs and upward. It is intimated in usually well-informed circles that the card may be advanced to \$3.75 this week. At Wheeling there are a good many piled up waiting for a rise in the river to be transported by water, but the quantity actually on the market there for sale is small. The Nail trade is ordinarily dull from November until January; hence it is not exvember until January; hence it is not expected that there will be any particular activity during the remainder of the year, but there is every prospect of a big spring trade, as a largely increased consumption is looked

Steel .- The Merchant Steel mills continue Steel.—The Merchant Steel mills continue to be fully employed. Some of them have difficulty in keeping up with their orders and prices are firm, but there has been no change in the card since October 17. The production of American Steel is probably larger now than ever before in the history larger now than ever before in the history of the trade, as the capacity—which has been largely increased within the past year or two—is nearly all actively engaged, but there is no accumulation. On the contrary, the consumption, as already stated, still appears to be in excess of the production.

appears to be in excess of the production.

Wrought Iron Pipe.—There is no apparent abatement in the demand, particularly for the smaller sizes, and the mills, not only here, but throughout the country, have all they can do. Here it is almost impossible to place an order for immediate delivery, and we have reason to believe it is the same elsewhere, as the mills are all oversold. There has not been such an active inquiry in the history of the trade, which may be attributed partially to the fact inquiry in the history of the trade, which may be attributed partially to the fact that it is going into more general use. It is taking the place of other Pipe because of being so much cheaper, and experience has developed that it answers the purpose fully. No change in card or discounts: Gas and Steam Pipe 25 % off on lots of over 10,000 feet, and 20 % for less. Boiler Tubes, 10 % off. Oil Well Tubing, 27¢ net; do. Casing, 85¢ net.

Horse and Mule Shoes.—One hundred keg lots are still quoted at \$4 and \$5, cash, respectively. The inquiry is usually light at this season of the year.

Railway Spikes—Are still quoted at 31/4 ¢
@ 31/4 ¢ @ 1b, 30 days. Manufacturers look
for a heavy demand in the spring, as it is
confidently expected that next year will be
fully equal, if it does not exceed, that of any
former year for railway construction.

Ralls.—Steel Rails are now quoted at \$60, and while the mill here is sold up for the remainder of this year, it is doubtful whether a contract for 1880 could be made whether a contract for 1880 could be made under our quotation, as everything at present points to an increased cost of production. Old Iron Rails continue quiet, but few offering; most of those arriving are being placed on former contracts, and we do not hear of much inquiry; may be quoted at \$36 @ \$38; sale reported at \$36. As in Pig Iron, there is a good deal of difference in the quality of Old Rails; hence the range in prices. It is very evident that the offerings of American will be comparatively light for some time, and that consumers will have to depend upon importations. English "double-headers" are now arriving here that were bought some time ago.

Ores,—The offerings of Native Ores con-

Ores .- The offerings of Native Ores con tinue light; the leading companies, as a rule, are sold up until the close of the year, and there is not much danger of any imme-

diate reaction in prices. diate reaction in prices.

Scrap.—The market is possibly a shade easier in tone, owing largely to the lull in Pig Iron, but stocks are light and prices are still maintained. Some dealers manifested a little restlessness last week, but others equally as well posted, and whose views are entitled to fully as much consideration, have faith; they can see no good reason apparent why prices should go off. Old Car Wheels, per gross ton, may be quoted at \$32.50 @ \$35. We are cognizant of the inside figure bearing them offered and the outside one \$35. We are cognizant of the inside figure having been offered and the outside one asked. Cast Borings, gross, \$16 @ \$17; Old Car Metal, \$26 @ \$28; No. 1 Railroad Wrought Scrap, net, \$40 @ \$42; Car Axles, net, \$45; Car Springs, \$35; Boiler Scrap, \$45; Wrought Turnings, \$25. There was a sale of Wrought Scrap yesterday at \$42, net.

Coke.-There has been an advance in this article during the past week of 20¢ @ 30¢ per ton, and we now quote at \$1.40 @ \$1.50 per ton, delivered on cars at ovens. Some les are reported at considerably higher cures, but they must have been small and rimmediate delivery, as it is not believed at buyers could be found for large lots for that buyers could be found for large lots for future delivery above our outside quotation. The advance was caused mainly by the in-creased cost of labor, an important matter in the manufacture of Coke, and we should not be surprised if the price would go still higher before long, as there is a large and increasing demand and very little stock in first hands, and even at the advance the margin for profit is small; d, moreover, it should be borne nd that this is the first advance for alm be borne in a year; also, that the rise is insignificant as compared with that of Pig Iron and some

White Lead-Has been advanced again and we now quote strictly pure, in ton lots, at 8 1/2 maller lots, 9%. The advance was brought about largely by the enhanced cost of linseed oil, which has been on the upward move for some time past.

CHATTANOOGA.

Office of The Iron Age, Market and 8th Sts., CHATTANOGA, Nov. 3, 1879.

The market seems to be pretty well settled, and contrary to our prediction of last week, this week's business fully sustains our week, this week's business fully sustains our quotations. As winter approaches there is generally a slight weakening in several kinds of manufactured articles, such as Nails and building materials generally, but nothing of the kind is perceptible at present. Last week's slight depression seems to have been only a natural reaction from the former rather excited state of trade. The weather has been cold during the week and weather has been cold during the week and dry. Memphis is very rapidly resuming her old time activity; the railroads west of that point are all open, and business throughout the South is no more vexed by fever news and open restrictions.

Ores.—Brown Hematite, 50 to 56 %; per ton, \$1.75 @ \$2.25. Red Fossiliferous, 50 @ 56 %; per ton, \$1.20 @ \$1.60. The above prices for ores delivered in Chattanooga on cars or on the wharf from flat boats.

Nalls—Are strong at \$3.75. The demand is good and promises to be rather better during the winter than it has been in the

Manufactured Iron.-All articles in the list maintain their prices. The mills are bare of stocks and orders are not sought after. We quote Bars at \$3.50; Railroad Spikes, \$3.75; Track Bolts, \$4.75; Trestle Bolts, \$5.50.

Coke.—We continue quotations at 10¢ % ushel for Washed Foundry; Furnace, \$3

Coal—Is in full supply with a strong market. The demand improves as cold weather approaches. We quote as before: Run of mine to manufacturers at \$1.25 @ \$1.75 per ton. Household Lump, delivered, 10¢ @ 14¢.

Iron Rails—We quote at \$48 @ \$50, and the market bare.

Steel Rails.—We quote at \$60 at mill, and no supply for transient buyers.

BOSTON.

NOVEMBER 6 .- The mar'tet continues slug-Novemer 6.—The market continues sluggish so far as American Pig Iron is concerned, and there is very little demand, except for immediate wants. Values are reported as settling downward at the shipping ports, and there have been some offers from second hands at a decline; but there is a strong undertone of feeling among sellers at this point, based upon the fact that most furnacemen are sold far ahead, and there can be no marked increase of production so long as the present scarcity of good ore exists. as the present scarcity of gool ore exists. Stocks of Pig Iron in the hands of Eastern consumers may be sufficient to last them into the winter on an average; but stocks in the hands of Western consumers are light, and no lengthy cessation in the demand from that quarter can be anticipated. Our quotations are rather nominal. We quote tations are rather nominal. We quote shipping-port prices of American Pig Iron at \$20 @ \$30 for No. I X; \$28 @ \$29 for No. 2 X; and \$27 @ \$28 for Gray Forge. Freights to Boston are \$1.40. We quote spot lots of Pig Iron at \$23 @ \$33 for No. I X; and \$31 @ \$32 for No. 2 X. Scotch Pig is dull and drooping, and the stock of foreign iron on the market has been further increased this weak by receipts of further increased this week by receipts of 1265 tons per steamer, 200 tons of which, however, is Middlesbrough Iron. The price put upon this latter brand was \$27, but without buyers. We quote Scotch Iron dull and nominal at \$27 @ \$28 for Eglinton; and anominal at \$27 (@ \$25 for Eginton; \$28 (@ \$29 for Gartsherrie and \$29 (@ \$30 for Coltness. Old Rails are dull, but though lower quotations are reported at other points, holders here are firm at \$36. Manufactured Iron has been without material change since our last report, and the demand from the stores, though less animated than a short time ago, is still very good. What-ever softening in prices may have occurred in the raw material has certainly resulted in

advance, but, in view of what has been stated, it could scarcely be maintained. It is generally believed that this important article will command a better price next summer, as an increased consumption and decreased production is looked for.

Window Glass.—There is no apparent falling off in the demand, notwithstanding the season is pretty well advanced. With scarcely any stock in first hands, and the cost of production increased,—discounts have again been reduced. Car-load lots are now quoted at 60 and 20 % off for single, and 70 % straight for double strength; jobbing, 60 and 10 and 5 %. There has not been such a demand at this particular time for many years.

White Lead—Has been advanced again.

ST. LOUIS.

Sr. Louis, Mo., Nov. 1, 1879.
Please continue quotations same as last week. Business has been good, and the slight break in prices of Scotch Iron has no effect upon the firmness of makers, nor does it seem as if consumers had any fears. The fact is that consumers would sooner have metal at a good price than at the previously low figures, and the general interest seems to be to prevent reaction.

to be to prevent reaction.
CHARCOAL HOT BLAST.
Missouri. \$45.00 ∅ Southern. 34.00 ∅ Hanging Rock. None offering.
COKE AND COAL,
Missouri. None offering Southern, No. 1. 32.00 (± 33.
COLD BLAST.
Missouri
Iron Mountain

the South is no more vexed by fever news and quarantine restrictions.

Pig Iron.—There is nothing new to note. The tone of the market is steady and healthy. We continue last week's prices. Coke Irons—No. I Foundry, \$28 @ \$33: No. 2, \$25 @ \$28; Gray Forge, \$28 @ \$33; No. 2 ditto, \$25 @ \$28; Gray Forge, \$28 @ \$33; No. 2 ditto, \$25 @ \$28; Gray Forge, \$27 @ \$28. Cold-blast Charcoal—No. I Foundry. \$28 @ \$33; No. 2 ditto, \$25 @ \$28; Gray Forge, \$27 @ \$28. Cold-blast Charcoal—Car Wheel Metal, \$30 @ \$40.

Muck Bar.—Still none of this important article in market. Old Rails and Wrought Scrap are rather easier, but still scarce and strong, at quotations. We quote: Old Rails, \$32 @ \$35; Wrought Scrap, \$28 @ \$33; Old Car Wheels, \$25.

Ores.—Brown Hematite, 50 to 56 \$\(\); per Messrs. E. L. Harper & Co., under date of Nov. 3, write as follows: The volume of trade has been very fair during the week, the demand being well distributed and general in character. The movement in Forge Iron has increased largely, a number of the mills having entered the market and placed orders for round lots at full price. The

HOT-BLAST FOUNDAY. Hanging Rock C. C., No. 1
Southern C. C. No. 2 38.00 @ 36.00 Southern C. C
Southern C. C. 38.00 (8 39.00 1
Strong Neutral Coke 38.00 @ 39.00
Fannie, American Scotch. 37.00 @ 38.00 Hocking Valley 8. C. 37.00 @ 38.00 No. 2 35.00 @ 36.00 Hanging Rock, S. C. 35.00 @ 36.00 No. 2 33.00 @ 34.00 PORGE IRONS.
Hanging Rock, S. C. 35.00 @ 36.00 10. 35.00 @ 36.00 10. 33.00 @ 36.00 10. 33.00 @ 34.00 10. 20. 33.00 @ 34.00 10. 20. 33.00 @ 34.00
Hanging Rock, S. C
Open Silver Gray 32.00 @ 34.00 FORGE IRONS.
Hanging Rock, C. C. Gray Forge 38.00
" Coke, " 38.00 @ 26.00
Cold-Short, Gray Forge 33.00 @ 36.00
CAR WHEEL AND MALLEABLE.

LOUISVILLE.

Southern....Lake Superior.... Salisbury.....

Messrs. Geo. H. Hull & Co., under date of November 1, write us as follows: The market is much more active than last week, and several large sales have been made. Furnaces are all firm holders, and made. Furnaces are all firm holders, and the few who have any surplus to sell ask full prices, which buyers do not seem willing to pay. Outside lots offered at any considerable concession find ready purchasers, and the best posted buyers are in the market for any of these lots. Nearly all sales are for cash, on which basis we now quote:

FOUNDRY IRONS.

39.00 @ 40.00
37.00 (8 38.00
37.00 (1) 38.00
30.00 (4) 37.00
3,
37.00 @ 38.00
36.00 @ 37.00
37.00 (38.00
36.00 @ 37.00
34.00 0 35.00
32.00 @ 34.00
35.00 @ 36.00
32.00 @ 33.00
31.00 @ 32.00
34.00 @ 35.00
85.00 @ 86.00
ONS.
45.00 @ 50.00
40.00 (45.00

Kentucky, Cold-blast 40.00 @ 42.0 The price of Pittsburgh Coal has advanced to 30c. per bushel, and none to be had. Kentucky Coal, so generally neglected, has adtucky Coal, so generally neglected, has advanced to 24¢ per bushel, but still the supply is largely inadequate to the demand. Anthracite is being introduced to a large extent, as its cleanliness makes it especially acceptable in private houses. The difficulty

of agents, but they are so trifling as not to affect the general market.

BALTIMORE.

W. N. WYETH, Iron and Steel Merchant, 46 and 48 South Charles street, Baltimore, reports us the following under date of Nov. 3: Trade has ruled moderately fair for the past week. Values are firmly maintained at unchanged figures, with supplies coming forward somewhat more freely.

Ref. Bar Iron, 1 to 6 by 36 to 1 ... 32 to 33 to

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
" 1 to 416 by 116 to 2 10 th all a all a
" to 4½ by 1½ to 2 @ b 3¼ @ 3½€" " ¼ to 2, Round
% to 2, Round
and Square
Hoop Iron, 11/8 wide and upward " 21/2 @ 4 d
Band Iron, from 1% to 4 in. wide. " 3% @ 3% @
Horse-shoe Iron " 31/4 @ 31/4
Norway Nail Rods " 5 @ 512¢
Black Diamond Cast Steel
Machinery Steel " 7 @ 8 ¢
Cast Spring Steel " 6 @ 6164
Homogeneous Steel Plate " 61/2 @ 7 ¢
Common Horse Nails " 10 @ 14 ¢
R. R. Spikes, 51/4 x0-16
Perkins' Horse shoes, W keg of 100 lbs\$4.121/2
" Mule shoes 5,1236
Attic 81008 5.12/2
10 0 8 7 6
Putnam Horse Nails 19 10 20 21 22 23 25¢
Globe Horse Nails 1 b 20 21 23 03 250
Less list discount to the trade
arous and dispositio to the trade

R. C. Hoffman & Co., Iron and Commission Merchants, report the Pig Iron market as follows under date of Nov. 3: The Iron market continues active and prices firm, particularly for Car Wheel Irons, which are sold considerably ahead of make. Anthracite Gray Forge Irons are also scarce and firm at prices named. We quote to-day

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NO.																					30.00
TAO.	3.	* 3	* 1									b	0 1					28	.00	0	29.00
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barcoal, C. B.	B	llo	0	m	ıs													62	.00	0	67.00
** **	В	ш	et	ж														69.	00	On	72.00
lefined Bloom	8															,		59.	00	@	57.00

RICHMOND.

Mr. Asa Snyder, Iron Merchant and Furnace Agent, writes as follows under date of Nov. 3: Business in small orders continues fairly active for the lateness of the season. Of the receipts of Foundry Pig Iron during the past week about 235 tons were Scotch. No change in quotations.

American Scotch Pig Iron @ 28.00
Anthracite, No. 1\$29.00 @ 31.00
Wo a
No. 2 28,00 @ 30.00
NO. 3 27.00 (// 20.00)
" Mottled and White 25.00 @ 27.00
Va. Cold-blast Charcoal, Cold-short. 28.00 @ 31.00
" Neutral 38.00 @ 30.00
Va. Warm-blast " Red-short. 20,00 @ 22,00
Old Rails 27.00 @ 28.00
Wrought Scrap No. 1 24.00 @ 25.00
Machinery " No. 1 20.00 @ 21.00
Richmond Refined Bar Iron, Stand'do3 @
Old Dominion Nails, per keg 3.60 @
Horse Shoes, Tredegar 3.75 @
Mule " 4.75 @
Freights to New York, \$1.90 for 2240 lbs. by sail.

Our English Letter.

Review of the British Iron, Steel, Metal and Hardware Trades.

(From our Regular Correspondent.)

LONDON, ENG., Oct. 20, 1879.

THE BUSINESS SITUATION just now is not a little complicated in many parts of the country. In Scotland the speculative bubble has burst, and in warrant quotations there has been a serious fall. Nobody, in reality, anticipated that the inflation would last, but everybody is more or less disappointed that such has not been the case. The present holders of warrants are in a perilgus condition, the majority of them in a perilous condition, the majority of them being "small men" who were tempted by the apparent prosperity of the pig-iron trade to dabble in these securities, and who now find the market falling all around them, while two months or so, hence the current depression in Scotland may possibly touch a rather low point prior to the partial revival which is sure to be its sequence. In connection with the period of excitement just passed through at Glasgow, curious stories are told. One well-known broker is reported to boast of having cleared £60,000 by transactions in warrants, and another firm are stated to have made a by no means slight profit by dint of their prescience as to what was coming from your market more than a month i before the earliest orders actually reached this country. The North of England, in sympathy with its neighbor across the Tweed, is not quite so firm as regards the Tweed, is not quite so firm as regards and party owing to the improvement which has begun to manifest itself in the condition of the fluished iron and shipbuilding branches. In the Midlands and in South Staffordshire raw irons are not strong, but several kinds of finished iron are in better request and dearer. Common bars have been officially advanced to the extent of 10/a ton during the week, and sheets by from £1 to £3. 10/. In consequence of these upward movements sundry sorts of of hardwares are also necessarily dearer, particularly goods stamped from sheet iron dicated above, apart from the circumstance that there are at the present time nearly

orders have been received during the week, orders have been received during the week, but I have not yet perused, or heard of, any account which demonstrates that the home market is responding to the earnest cultivation which is being bestowed upon it by those to whom its development is a matter of much moment. It is now a pretty well ascertained fact that our harvest is about one-third below the average in 30 counties, and about one-half below in the remaining 10 shires. In many of the northern agricultural districts the corn will not be worth cutting—indeed, it is not yet ripe and the cultural districts the corn will not be worth cutting—indeed, it is not yet ripe, and the weather is necessarily such that no further fruition can be attained. The potatoes, too, yield very badly, probably 30 to 40 per cent. below a modest average. Under these circumstances it needs a sanguine disposition to look for any revival of trade at home at present, in the agricultural districts at all events. If the change is to be supported and to progress, its sustentation must inevitably come from beyond of trade at home at present, in the agricultural districts at all events. If the change is to be supported and to progress, its sustentation must inevitably come from beyond our own shores. Of the rocket-like ascension of our metal market proper I need not say much. The bubble is now attaining a great size, therefore I infer that the strain will not endure much longer, but that the bursting point will soon be reached. Copper already displays signs of weakness, but tin is up in the clouds, the figures of to-day being remarkable when compared with those of a fortnight ago. In the interval the rise has been nearly £20 a ton. The only beneficial effect of the rise is the revivification of the Cornish mining industries, which are filled with renewed life after a long period of torpidity. A Western paper, in alluding to the matter, says the alteration must be a dream. It is too strange to be true and to prove lasting. I am afraid that is the case. Passing on to the tin-plate industry one finds everything couleur de rose. Everybody is busy. The men are working full time for five days with an advance of 7½ ½ in wages; order books are full, and selling prices are "on the up line." During the past week the amount of business actually transacted in these goods has been very large, much of it on account of purchases for American export, but also to some extent by reason of French and Australian indents. These sales have for the most part been effected at prices which are from 2/@ 3,6 per box more money. The inflated state of the tin market and the remarkable jump in hematites, renders the tin plate producers very cautions in respect of forward deliveries, and few of them are willing to build themselves for 1880. Generally speaking, all list quotations are withdrawn at present, and each purchaser must negotiate his own terms on the best basis he can command.

THE RECIPROCITARIANS are not altitle delighted by reason of

THE RECIPROCITARIANS

are not a little delighted by reason of the undercurrent of protectionism which they think they can detect in the speech made by Lord Salisbury at Manchester the other day. The Marquis of Salisbury is, as you know, a Cecil and a very clever man. Years ago he made his mark as a clever literary man, and he has always been accounted an acute politician as well as a trenchant speaker. Mr. Disraeli described him as a master of "gibes, flouts and sneers," but Lord Beaconsfield now holds him as his right-hand man—as the one permanents. him as his right-hand man—as the one person who will carry out the policy of imperialism in its integrity. My Lord Salisbury is, therefore, no mean personage, and his adhesion to any movement such as that which has reciprocity for its object, would of a certainty be a most marked gain to the promoters of the scheme. I cannot myself perceive any distinct promise from Lord. promoters of the scheme. I cannot myself perceive any distinct promise from Lord Salisbury that he will support reciprocity, but he certainly spoke regretfully of the foolish manner in which we had in former times made our commercial treaty bargains—by giving all away we had no ground —by giving all away we had no ground whatever for obtaining new concessions now. He expressed surprise that the United States should submit to such heavy taxation for the purpose of conserving the interests of a few producers! His idea, generally, appeared to be that we ought to have retained some of our duties until other countries had showed their readiness to make reciprocal and corresponding reducfind the market falling all around them, while they retain warrants for material which is not of the slightest use to them. They cannot, in many instances, pay for their purchases, so that the ensuing settling day will not improbably bring about several failures, unless the stoppages are deferred by the holders paying interest for the iron to be held over. This course the majority will no doubt favor, inasmuch as it will give the chance of another rise in prices and consequent opportunity for effecting a clearance. Advices from your side do not seem to hold out the promise of a continuance of the large demand which has prevailed during the past two months or so, hence the current depression in Scotland may possibly touch a rather low point prior to the partial revival which involve partial or complete reciprocity.

ever softening in prices may have occurred in the raw material has certainly resulted in the matter of price as in the lack of transportation facilities. The difficulty goods stamped from sheet iron sheet iron sheet iron and those in which the metals are the price as in the lack of transportation facilities. The lack of the prospect is not so much in the matter of price as in the lack of transportation facilities. The lack of transportation facilities. The data in the matter of price as in the lack of transportation facilities. The lack of the present time the result in the facilities. The lack of the prospec

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to 57/9 per ton, then back to 56/7½, closing at 56/10½ per ton. To-day the tone mg at 50/10/2 per ton. 10-day the tone was firmer, with business from 57/ to 57/9 per ton, closing sellers at 57/ and buyers at 56/9 per ton. The shipments last week were 20,544 tons, as compared with 10,362 tons for the corresponding week of 1878."

Janes				No. 1.	No. 3.
G. M. B., at G	lasgo	W		60/	56/
Gartsherrie.	6.6			68/	60/
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Langloan.	0.6				60/
Carnbroe,	6.6			70/	59/
Calder, at Por	t Du	ndas		09/	60/
Glengarnock,	at Al	rdrossi	an	71/	59/
Eglinton,		66			58/6
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In manufactured iron an advance of about 10/ per ton has been established. Last week's shipments of manufactured iron, maweek's supments of manufactured iron, machinery, &c., from the Clyde were heavy and valuable. They included 500 tons of old rails valued at £1600 (or about £3. 7/per ton) for New York.

YOUR INVENTORS

have an opportunity of distinguishing themselves. Mr. Lapton, of the Yorkshire Mining College, Leeds, declares that there is not a real safety lamp in existence. "What is wanted," he says, "is an absolutely safe safety lamp, which will give a good light. This has not yet been invented; when it has, it will be a great step forward." This statement may seem to be rather strongly phrased, but I think I may say that it is within the truth. Miners and mine owners know very well that the existing lamps are only relatively safe. Given a sufficiently dense volume of gas in a mine, and they are pretty certain to give rise to an explosion, the necessary mixture of air being always ready to hand. The Stephenand they are pretty certain to give his to an explosion, the necessary mixture of air being always ready to hand. The Stephen-son, Clamy, Protector and Davy lamps all have pretensions to infallibility, the "Geor-die" probably being the best, but even it is not a lamp which can be implicitly relied upon. The Clamy has a glass tube, and gives a better light, but the glass involves gives a better light, but the glass involves the risk of breakage and consequent addi-tional liability to dangerous contact with the foul gases of the mines. There is scarcely one of these lamps which cannot be unlocked by the miner with the point of his pick—a circumstance the statement as to which considerably astonished a Yorkshire bench of magistrates the other day. If, therefore, anybody in the United States has anything to say on the subject, or an infalli-ble lamp to show, he should at once come forward and let the world have the benefit of his invention. There is a good deal of money awaiting the successful man. Your people are ahead in most mechanical matters—surely you can oblige us in this particular. Who speaks first ?

THE ADVANCED PRICES

so far declared comprise many kinds of iron and hardware quotations. Tin plates generally are up 1/6 to 3/ per box, making them about 5/ dearer on the past six weeks. them about 5/ dearer on the past six weeks. Scotch bars are 10/ up and now rule at £7 per ton. North Staffordshire bars are advanced by 10/ @ £7 and £7. 10/. These include Robert Heath & Sons, Messrs. Kinnersleys, J. B. Brown's, &c. The Phosphor Bronze Company (Limited) have raised their alloys 1, 2, 3 and 4 to £115; 6 and 7 to £130, and 11 (special bearing metal) to £110—all per ton at the works. Messrs. Neve & Son, Wolverhampton, announce an advance of 10/ per ton on all common merchant bars, rods, hoops, sheets, &c. The S. C., B. B. H., Crown and all marked iron remain as before. Messrs. G. & W. Underhill, Wolverhampton, also advance all prices remain as before. Alessrs. G. & W. Under-hill, Wolverhampton, also advance all prices to/ per ton, with the exception of John Bradley & Co's., B. B. H., Crown, Lion, Mitre and Lord Ward's brands. Plain galvanized sheets, galvanized corrugated sheets and black corrugated sheets are advanced 20/. T. W. & J. Walker, London, &c., now 20/. T. W. & J. Walker, London, &c., now quote their three crown brand of galvanized, 24 gauge, f. o. b., £16. The sheet manufacturers have generally advanced common, £1; cold-rolled, £2, and best stamping sheets, £3 per ton. Brass and copper hardwares are 5 to 10 \$ dearer. Discounts on fry pans are reduced 2½ \$ and net prices are advanced 5 \$ all round on wrought-iron hollow-ware. Iron tubes and fittings are 2½ \$ bigher, and cut nails maintain 10/ rise. Hematite pigs are nails maintain 10/ rise. Hematite pigs are 10/ dearer, Tredegar being 75/ and Barrow 80/, both almost prohibitive figures. Belgian iron wire in London has risen 5/, and is now quoted £12. 5/@£12. 10/; bars and nail rods, 10/ to £6. 10/ and £6. 15/; joists and girders, £5. 5/ with a further advance probable. Pewter goods are dearer to the extent of 5 % less discount, making the discount now 35 %. Shoemakers' malleable and cast hobnails are up 1d. and 1/2d. per Shoomakers' malleable and cast hobinals are provided and such like articles are 5 to 10 % dearer.

Malleable iron castings are 10 to 12 ½ \$ higher. Steel rails are now about £5. 5/ higher. Steel rails are now about £5. 5/ @ £5. 15/ per ton, against £4 @ £5 a couple of months ago. Many other kinds of goods are dearer—the fact being that every manufacturer is glad of the excuse afforded by the activity of the metal and raw iron markets to announce advances in the prices of his own productions.

being refused, et id hoc genus omne at home, to say nothing of the better reports from France and Belgium. How, then, shall we longer nourish doubts and suspicions? Shall we not throw away our fears and boldly seize the cornucopia which is proffered to us? Probably here also safety lies in a medium course. We must take care to avoid medium course. We must take care to avoid being frightened into purchasing beyond our requirements, while, on the other hand, if we hold back too long, we run the risk of being left high and dry, out of the reach of those low quotatiens which now seem likely to be vanishing for a period. It is thus apparent that we cannot see as yet whether the spurt will last or whether it will pass away. Another week or two ought to show us a long course ahead.

SEVERAL ORDERS on a large scale are spoken of in support of the opinions of those who believe in the continuance of the briskness which we are now witnessing in many industries. In the London building trades over £1,000,000 of orders are said to have been given out within the past ten days. From Australia and the Cape recent letters speak of very heavy undertakings in respect of railway works within those colonies. The tin mines of Cornwall & Deven are gaining ground fast, and their renewed vitality will be the means of caveing a lawer circulation of monor. of causing a large circulation of money throughout the West of England. South Wales is busier, and the lead mining districts of Derbyshire, North Wales, North Yorkshire, Cumberland, &c., are participating in the general rise of the markets. The north-ern and western shipbuilders are full of hope, and some of them of orders, which they doubtless prefer to the more airy com-modity. The large and medium-sized towns are going in for tramway schemes, which will create work and a good demand for rails of iron and steel, and so aid the good work of progress forward to its desired con-summation. These are all 'prave 'ords and true; let us devoutly trust in the fulfillment of the promises they hold out. Speculation and the discontent of the workmen may spoil the fair picture. Already they have done something to that end, and appear likely to operate more insidiously than here-

MR. ALEXANDER MACDONALD. who, by some truly extraordinary and inexplicable turn in the social kaleidoscope, became member of Parliament for the town of Stafford at the last general election, is again to the fore with his most pernicious nostrums. Mr. Macdonald, of whom I know nothing privately or personally is in his trums. Mr. Macdonald, of whom I know nothing privately or personally, is in his public capacity neither more nor less than a blatant windbag; a "yellow spectre" who makes periodical appearances at miners' conferences for the purpose of propounding the maddest schemes ever hatched in brains totally devoid of the merest primary essentials of political economy. This time he recommends anew the policy of setting all the mines idle for a month or six weeks;

beaconsfield by saying that its soil (Manitoba) is 25 to 50 per cent. more productive than the best parts of the United States. It is a possible to the program of the United States and the best parts of the United States. It is a possible to to manufacture a special kind of crucible steel for the plow plates, which are to be used in cultivating this amasingly fertile soil. Speaking of the trade of Sheffield with the United States, a local correspondent of the Ironmonger says: "Messrs. Jessop & Soms have been sending out increased consignments of steel, particularly of steel plates for circular saws, from 6 inches to 7 feet in diameter. There has been a great deal said about the excellence of the American saws, but the fact is, the great bulk of the plates of which they are made go from this country. One Sheffield firm has been heard to state that they supply more plates to a well-known American house than are worked up by all the circular-saw makers in Sheffield combined. The file manufacturers in the town, who once did a good trade with that country, are beginning to take heart. The American machine-made files are now only some 15 per cent. lower than the hand-made Sheffield goods; and if that difference should be wiped off by the Americans putting up their quotations, at once there would be a demand for our files, as the preference for them has not died out. There is no country in the world where the people leve good raxors more than in American. Up to the present time they have not been able to produce them with any degree of success; and, according to the New York correspondent of the Frommonger, the toba) is 25 to 50 per cent. more productive than the best parts of the United States. The soil is so rich that the Sheffielders have kets to announce advances in the prices of his own productions.

WILL IT LAST!

is the question one now hears most frequently. It is not easy to answer the query. Judging from existing means of observation and the facts which transpire day by day, the inference would seem to be that the endurance of the revival is doubtful. On the other hand, there are many indications which appear to point to the opposite conclusion. Iron-trade items largely fill the odd corners of the newspapers, and the trade journals tell us abundance of stories about the restarting of furnaces, works and plant which had long been idde, and which have been revivified by the upward course of selling prices. Travelers proverbially tell strange tales, and at the present juncture some of them, on behalf of iron and hardware houses, report that they have done more business during the past fortnight than for a year or two, and that even in the purely rural districts they find a disposition to buy goods on the part of ironmongers

nandles, and in the grinding of the blade—
more especially the latter. The Americaus prefer small hollow-ground or Hamburgground razors. That style of grinding is so called because the men of Hamburg were the first to adopt it. Englishmen got hold of the idea, and now beat the inventors in the beauty and perfection of their work, thereby furnishing at least one proof that we can improve upon and teach our teachers. The leading advantages of the hollow-ground razor are, that it is easier to set, lighter to the touch, and nicer in all respects. 62/, 59/9, 60/6 and 59/ per ton, while on Wednesday the market opened at 58/3, improving to 60/ and closing at 58/ per ton. Yesterday business was transacted from 57/ So enamored are the Americans of them that few heavy straight-ground goods go there now. The art of ornamentation in gold and silver, dead and bright work, etching upon the handles, &c., as introduced by this firm into their razor trade, has been brought to great perfection, and more beau-tiful illustrations of it are rarely seen, even on goods especially intended for exhibition. At present Messrs. Wostenholm have little fear of any serious competition from American manufacturers. Whoever act as pioican manufacturers. Whoever act as pioneers of the razor trade in America must expect to sink a large capital, and no one seems disposed to do that at present." Some of these statements are not without a flatter ing meaning to your manufacturers. It is certainly nothing to the credit of Sheffield that she should send more steel to one American saw works than she herself makes up into those articles.

STAFFORDSHIRE AND BIRMINGHAM have grown busier since the holding of the quarterly meetings, and there has been an almost universal movement of prices. To these features of the altered state of things, however, I have called attention in other portions of this letter, so that I need not "cumber the ground" afresh here. At the ironworks there is much preparation for re-starting furnaces, mills and forges, while the hardware manufactories are distinguished by longer working hours, and a "clear-ing of docks," which betokens the general impression in favor of the immediate advent of those good times which have been so tardy in coming.

THE METAL MARKETS
have been very active but are just now on
the "down road." Tin has been especially
strong. The latest official report of the
London Metal Exchange says: "Copper.—
Chili bars somewhat easier; g. o. b., £65.
10/@£66 spot, and £66. 10/@£67 forward; Wallaroo, £73. 10/@£74; Burra,
£71. 10/@£72; English tough, £69. 10/@
£70. 10/; best selected, £71. 10/@£73.
10/; stong sheets, £74 @£76. Tin.—
Lower; fine foregin, £93 @£92; English
ingots, £97. Iron.—Scotch pigs, 57/@
58/5, cash. Lead.—English pig, £17; soft
Spanish, £16. 10/@£16. 15/. Spelter.—£18
15/@£19 for ordinary brands. Quicksilver. THE METAL MARKETS 15/ @ £19 for ordinary brands. Quicksilver.—£8. 10/ @ £3. 15/. Antimony.—£60 for ward, £65 spot.

FOREIGN.

totally devoid of the merest primary essentials of political economy. This time he recommends anew the policy of setting all the mines idle for a month or six weeks; urges the colliers to emigrate to the United States, where he declares there is plenty of work for them to do, and has actually succeeded in cajoling several other "leaders" of the poor miners to form, with his aid, an Emigration Union. This man's wild projects meet with almost universal condemnation at the hands of the press, but he is the sort of person who is utterly impervious to criticism; who is self-opinionated to the last degree, and who is gifted with that persistence in wrong ideas which leads to shipwreck in most instances.

FROM SHEFFIELD

There is rather better news. Iron and steel is decidedly steadier, and in all kinds of hardware, cutlery, &c., there is more business in hand. A gentleman who has just returned from Canada is said to give quite a cheering account of the trade prospects of the Dominion. He supports the Earl of Beaconsfield by saying that its soil (Manitonal Companies) and so frances at Havre and 40,50 here; Vielle Montagne Sheet, 55 frances, Marseilles is also wasker. They quote Sheet Zinc, 66 & 62, and Old Remelted, 27. Fron.—We cannot but repeat, so far as the general situation is concarned, our former reports—6. e., that the revival is a real one, and true. In the Haute-Marne small Iron remains in request, and prices have been screwed up a little. In the Loire and Rhone basins the trade and request hard requested and request has a manufacture a special.

AUSTRIA.

(Austrian Trade Journal.)

VIENNA, Oct. 12, 1870.—Iron.—The course of trade has been in many respects a highly satisfactory one, and although the volume of sales has in most articles not exceeded normal bounds, there has been, on the whole, a decidedly more confident tone. The tendency of prices has been as a general thing a gradually upward one. Iron is also looking up more and more, and both the trade and consumers are casting aside the reserve and hesitation hitherto observed. There has been no fresh advance in prices during the week. Merchants and manufacturers have been much exercised about the plans of a Germano-Austrian "Zoilverein" now being put forward. They are, most of them, decidedly in favor of it, and many seem of opinion that eventually a customs league may be formed embracing even other continental nations. They seem to think that a war of tariffs cannot be carried out on the Continent in the future, and that it will be more conducive to the interests of all to stimulate continental trade on a liberal basis of reciprocity. Nations whose manufacturing capacity is about equal, or who, like Holland, are merely trading nations without industrial aspirations, may co-operate on this basis, but nations who wish to build up a manufacturing industry, and in some provinces only possess such, like Spain, may feel less inclined to join such a customs union. One thing is certain, and we have alluded to it in former reports, and that is that Austrian commercial relations are expanding considerably on the Balkan peninsula, and that Germany will, in a customs union, be equally benefited by this extension of trade facilities.

QUEMANY.

HAMBURG, Oct. 18, 1870.—Metals.—Although the revival has manifested itself more slowly in the Iron branch in Germany, the last few days have brought about a notable advance in Pig Iron of some 6 marks per ton. In the Rhenish provinces and Westphalia an increased amount of orders has dropped in, and the works are busily engaged in filling them. The rolling mills have received extensive orders from the German railroad lines. The metal market has been quite irregular; the sales for consumption are not large, but we presume the urgent requirements which are known to exist in various quarters will soon force many consumers into the market and prices will then be established on a firmer basis, rates being quite mominal for the moment, in consequence of the violent fluctuations in England, Holland and France, which, in their ever-varying character render it difficult for the German markets to follow. The Copper markets have been a good deal excited, closing more quietly. The same relates to Tin. Lead has been less influenced, but remains firm. Spelter is less active. Antimony is scarce and rising. A great impulse has been given to railroad building in Germany of late years, and there are now 16,048 miles in operation, which conveyed last year 14,088,442 passenger, and six were wounded. Of employees, one was killed out of every 9632, and wounded one out of every 3202.

HOLLAND.

(Koch & Vilerboom.)

ROTTERDAM. Oct. 21, 1879.—TVn.—The market has been under the influence of an extraordinary

excitement, speculators having pushed both Banca and Billiton from 48 guilders the 50 kilos, to 55%. The movement is purely speculative, for consumption proceeds with the utmost shyness, and does not buy except for pressing wants. The speculation has now assumed proportions which render the metal extremely dangerous to touch. As long as the movement seems still upward sellers hold back, but at every phase of weakness there is a rush to sell, and the decline then becomes all the more precipitate. The market closes at 56.50 @ 57 for Banca, and 56.50 for Billiton.

EAST INDIES.

(Gilfillan, Wood & Co.)

Singapore, Sept. 23, 1879.—Tin.—Early in the fortnight the market was steady at \$22.50 per picul, at which considerable purchases were made for the United States. Since then there has been more inquiry, and the market advanced to \$23.50 per picul, but London having declined, our market followed and closed weak at \$22.50 per picul; but the London market is since firmer, and we close steady. Supplies are not large, and this has helped to sustain prices. The shipments during the past fortnight, from the Straits to New York, have been 295 tons, of which 155 tons went by direct steamer, and the remainder by steamers via London. Freights.—There is no change. For New York the Bhotan will clear in a day or two, leaving only the Ringleader on the berth. Rates are unaltered. For Boston the Winona has been chartered on secret terms. Exchange—Closes at 3/8/6 2/9 for 6 month's sight credit drafts on London. (Gilfillan, Wood & Co.)

The grounds of Buck Brothers new chisel manufactory, at Millbury, Mass., have been tastefully laid out during the past summer, and a neat iron fence has been put up in front of the works by Messrs. H. C. Fish & Co., of Worcester. The building is finished with pressed brick and trimmed with white granite, and the roof is covered with slate, the words "Buck Brothers' Riverlin Chisel Works" being worked in Indian to the least of the state of t Works" being worked in, in light-colored slate. The sales of this company last month were the largest they have ever had in

LION FEED CUTTER.



Dealers desiring the exclusive sale of this

SUPERIOR MACHINE

which takes the Trade wherever introduced, will please address for circular and terms

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PATENT CONCAVE FORGED OX SHOES.



PLANES, PLANE IRONS, &c. COVERT'S HORSE AND MULE JEWELRY.



Consisting of Covert's Celebrated Harness Snaps, Swivel Snaps, Open Eye Bit and Chain Snaps, and Thimble for Horse and Cattle Ties, Rope Goods, consisting of Horse Ties, Cattle Ties and F Leads, Leather Horse Ties, Breast Chains, Halter Chains, Martingale Chains, Rein Chains, Post Cl Post Rods, &c. These goods are far superior to anything of the kind on the market. They have real merit become standard, and never fall to give entire satisfaction. They are sold by all leading bers in general and saddlery hardware at manufacturers' prices. Send for illustrated catalogue price list, Address COVERT MFC. CO. Sole Manufacturers, West Troy, N. Y.





The demand for Scroll Saws has become so large that most Hardware dealers are get-

The demand for Scroll Saws has become so large that most Hardware dealers are getting in the way of keeping them.

The trade commences in early fall and lasts all winter, thus helping business in the dullest season. There is probably not a Hardware store in the land but that could sell some of these goods.

some of these goods.

We are headquarters for hand and foot-power Saws, Saw Blades, Wood, Designs and all things pertaining to this business. The Lester Saw at \$8 and Rogers Saw at \$3 are now in universal demand. The Lester Saw consists of a Scroll Saw, Circular Saw, Drilling Attachment, Emery Wheel, Dust Blower, Turning Lathe and Tools, extra Saw Blades, Drill Points, Designs, Screw Driver, Wrench, &c. It has been greatly improved since last year, and is a very perfect machine. The Rogers Saw consists of a Scroll Saw, Drilling Attachment, Dust Blower, Designs, Drill Points, Saw Blades, Wrench, &c. The Saws are nicely boxed, without extra charge. We warrant them in all respects. They give

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No. 102 Chambers Street, NEW YORK.



With Wood Track. It does away with the iron rail, and cannot be thrown off the track, having a flat-faced wheel one inch wide. It runs as easily with less noise and can be put up in less time than any other Hanger made. Track made solid or of two pieces. For sale by the wholesale trade generally, and the

KIDDER SLIDE DOOR HANGER CO.,

Sole Manufacturers.

to

ROMEO, MICH.

PECK & SNYDER'S SELF-ADJUSTING AMERICAN CLUB SKATE



Has held its place in the market for the past five years as the "Boss Skate." It pays dealers to keep them, as they sell at sight, requiring no key or wrench, no nuts or screws to kek. Perfect in style, fish and workmanship. We mail a complete price list of Skates with trad discounts to dealers on application. Address, Manufacturers and Jobbers of Skates and Straps.

PECK & SNYDER, 124 and 126 Nassau Street, New York.

NATIONAL Horse Nail Co.

FINISHED

[BRIGHT OR BLUED]



These nails are made of the best brands of NOR-WAY IRON, and are guaranteed to be equal to

NATIONAL HORSE NAIL CO., VERGENNES, VT.

HORACE DURRIE & CO., Agents. No. 97 Chambers St., New York

The Oldest Shot Tower in America.



THOMAS W. SPARKS,

Manufacturer of SPARKS' American Chilled Shot.

Rivaling the English and all Others. STANDARD DROP & BUCK SHOT HORACE DURRIE & CO., New York City. 121 Walnut Street, Philadelphia.



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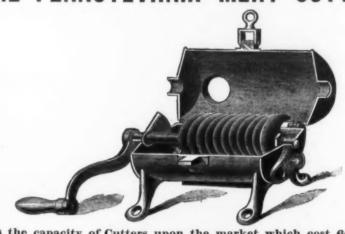
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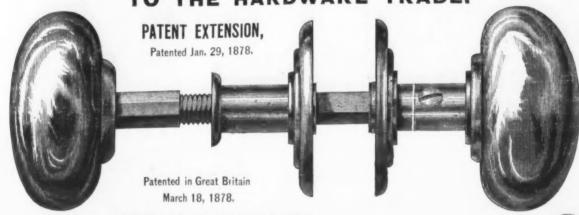
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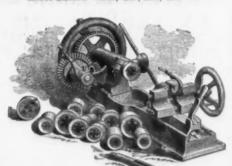


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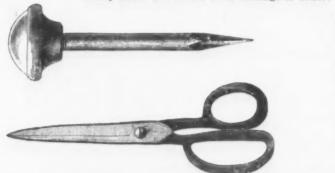


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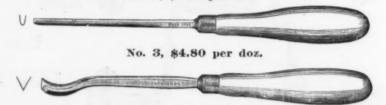
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	Enguso # 2) 20
ļ	0 I C 20X14 Prime Charcoal
ļ	C 12X12 8.25 @ 8.75 V 10X14 Charceal 10.25 @ 10.50
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6	Best. 2d quality. Ordinary. I C 10X14 } \$7.75 7.50 7.50 7.50 7.50
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0	Prime Char. 3d qual. Coke.
١	IX 14X20
c	I X 20X26
c	I C 14 x 30 M. F. Brand
5	SPELTER-DUTY: In Pigs, Pars and Plates, & F
	American, cash
	ZINCDUTY: Pig or Block, 1.50 # 100 Bs. Sheet,
	100 BB.
	- Open 9 % 9%
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0	
,	Canvas linen
	White cotton, new
	No. 2
	Mixed woolens
	Gunny bagging
	Kentucky bagging
	Rope cuttings
	Tarred shaking
	Soft No. I
	Mixed Shavings, part white
	Canvas linen
	" Heavy
1	Prints.
1	Bogus Mantias and Hardwares
j	Binders' Board Cuttings
1	Commons.
1	Copper, heavy
	Copper Bottoms
-	Copper Bottoms
The second name of the second	Copper Bottoms
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	ı Oi	ls.			
:75	Linseed, Raw, in casks and Boiled. "Boiled. "Bleached Whale. "Sperm. "Elephant.	bbls.	1	Fgal. 8	sc & 860
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1.55	Prime Lard		*****		004
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r. 7	Drilling				400
nts	Empire Cylinder				65C
D.	Figh Oil pressed	******	******	3	400
the	Neatsfoot				65C
OF	Tallow				640
	Machinery	******	*****		400
	"Elephant. Signal Prime Lard. No.t West Virginia Drilling. Empire Cylinder. Miners' Oil. Fish Oil, pressed. Neatsfoot. Tallow. Machinery Engine.				
**	Bund	ries.			
	Asph atum				08
**	Bensine			#1	81, 100
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	Frostings			******	50L
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	Gum, Copal	******			чбс
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léc léc	snellac, English	******	******	**** **	25
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	five inches. An additional to per cent. Glass more than 40 inches winches in length, and not mainches will be charged in the	wide. All sizes above king more than 81 uni	te



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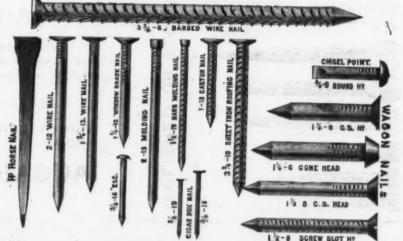
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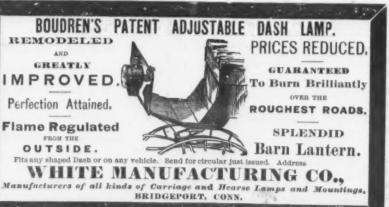
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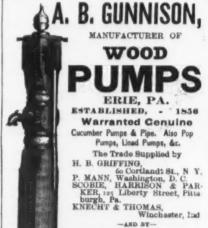
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HARDWARE.	"Plated Knob & Slide Flush Carriage and Tire, Common		Cockeyes1)(in., 28c.; 1 Cocks, Brass. Racking	dis 35	Nail and Spike	eross \$12.00 dis 60&10 \$	Knives. Ames' Butcher Enives
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Wright's	" Shelton's	(ota list) dis 65 %	Coffee Milis.	dis ac	g " Ives'	dis 50 %	Knobs.
Trenton	Tire. Am. Screw Co.'s, Phila, new list,	Nov 1, '79, dis 65\$	Selsor's Pat.	89.50, \$10.50, dis 25	Glue Pets.	dis 40 %	R. N. ODS Carriage 'Jap'd Soc. P gross
Augers and Bits. Conn. Valley Mfg. Co	" R. B. & W Stove—American Screw Co.'s	dis 70&10&5 %	The Swift (Lane Bros.) Combined Dinner Pai		" L. F. & C.'s "Handy Grindstone Fixtures.	dis 25 %	Por. Jap'd Plated Por. Por. Por. Por. Por.
Douglass Mf . Co	" R. B. & W	dis 50 %	Per dos \$14.00	F	8 Sargent's Patent	dis controls dis 25&10 % dis 235&10 %	Furniture, Plain
Beecher (French, Swift & Co)dis 40&10 %	" R. B. & W	dis 50 %	Compasses	orwood at h	c Gun Wads.	#3.00)	Freture (T. & S. Mrg. Co.)
C-iswold	Bolt Ends "	dis 55 %	Dividers. Bemis & Call Co.'s Dividers. Compasse Wing & Is	dis 60&20 es & Unitipersdis 55 naide or Outside dis 50&5	9 8 10 7 & 8	2.50 dis 585 %	1 adies. dis solves
Fasson's Patentdis 50 %	Boring Machines. Upright. A	nguisr. 86.75 dis 40 %	" Call's Pat.	. Insidedis 35&10	7 & 8		Monroe's Patent doz \$4.00, dis 20 %
Cook's, Ives'	with Augers 8.50	10.25 dis 40 % 3.50 net.	Excelsior	dis 25	S Cheney's, List January, '70	. 10th, 1876dis 15 % dis 25 %	Lanterns
" C. S. Bits	Phillips' with Augers	10.00 dis 40 %	Corpers' Tools. Bradley's	& B G18 3335	Magnetic Tack, Nos. 1, 2, 3, \$1.25,	. 1.50 and 1.75.dis 25&10 \$ dis 10 \$	With Guards, 35c extra. Hurricane. Gls 25 g
Patent Solid Head	Braces.—Barber's Patent	dls sokto #	Corn Knives and Cutt Wadsworth's Crow Bars.	ers Brauley's dis to !	Kip's (new list, Dec. '78)	dis 30 %	Yankee
Dowel and Hand-Rail Bitsdis 10210210 % Russell Jennings' Augers,dis 16%210210210 %	Wilson sifg. Co Spofford's Patent.	dis soltto \$	Iron, Steel Points	₩ m 7	Halters. Covert's Pat. Rope Horse and Cattle Ties, Covert's	dis 50 %	Convex Reflector
Russell Jennings' Car and Machine Bits, Boring- Machine and Millwrights' Augers dis 25&10&10&10 %	Noble's Patent	dis 55@55&10 %	Curling Irons, &c.		Hand Cuffs and Leg Iron Providence Tool Co.'s Hand Cuff Leg Irons,	8, \$15.00 P don dis 10 %	Porcelain Lined
Imitation Jenning's bits	Common Bali (American)	dis 55&10 %	Fitch's (List of No. 240, \$1)	dis 40	% Nos o I s	ntches—	SammisNo. 1, \$7,00; No. 2, \$12.00 % doz., dis 45 % Townsend's Patent\$6,00 % doz., dis 33% %
Lewis' Single Twist Bits'dis 40 % Andrews Bitsdis 50 %	Bright Wire Goods list of July 8, Bull Rings.—Union Nut Co	dis softao s	Lawrencethe detachable	dis 40	Fer dos\$0.50 1.00 1.18 Roggin's Latches Bronsed Irop Drop Latches Jap'd Store Door Randles—Nuts	per dos 450@500 net	Cotton Chalk
Expansive Bits, Clark's, small. \$18; 1'ge. \$26dis 25 % Ives	Sargent's	.low list dis 34 %	Currels Pins Silvered	Glass	Jan'd Store Door Randles—Nuts no Plate, oc. Harn Door. Wrought Chest. Surface Chest, Sargent's list	er dos \$1.00, dis 60&10 \$	Porcelain Lined
** Blake's	*uma*on Beckiey & Co.'s (low list) Butts.		White Enamel		Wrought Chest. Surface Chest, Sargent's list Flush Chest.	dis 64810 %	Locks and Laiches. Cabinet—Eagle
Hollow Augers Ives fdis 30 % French Swift & Co. dis 30 % Douglas dis 30 %	Wrought Brass	dis 40 %	Am. Miller Bro.'s Cutlery Co. Humason & Beckiey. Pocket. F. W. Rogers & Son. A. A.	dis 25) dis 33/8) dis 40/8 (& 5)	Lifting. Saw and Plane Beynton's Pat. Loop Saw Handle Centennial Saw	dis 50&10 % dis 40&10 % es. dis 20 %	" Bridgeport.)
Bonnev's Adjust \(\psi\) doz \(\psi_4\) \(\psi\) doz \(\psi_4\) \(\psi\) doz \(\psi_4\) \(\psi\) doz \(\psi_4\) \(\psi\) doz doz \(\psi\) doz \(COMMON CAST, NOT DRILL	ED.	F. W. Rogers & Son, A. A Naugatuck Cutlery Co Aaron Burkinshaw's Pocket	dis 35 1	Hammer and Hatchet. And Awl. Hickory Firmer Chisel, assorted	Handies	Round Key, No. 1 to 5dis 50810 %
" Ivee' Expansiveeach \$4.40—dis 30 %	* Broad	. dis 40& re& ro %	Deg Coliars. Embossed Gilt. Leather. Brass.		a large.	, ₩ gross 84.50 5.00 5.00	Paragraph of Politics Wiles Work
Gimlet Bits\$7.40 \(\psi\$ gross, dis 45.5	Loose Joint, Narrow and Broad DRILLED AND WIRED.		Door Springs.	W dog \$2.50 per	large,	6.00 dia	
"Bee"	Past Joint, Narrow Broad	dis 40&10&10 %	Bee Rod		File, assorted, W gross	2.75	Plate dis not said 5 F. Many's "Extension Cylinder" \$10.40 W doz. net DUOR LOCKS, &c. \$10.40 W doz. net Branford dis 522 %
et. Valley Mfg. Codis 30&10 %	Japanned with Acorm	dis 508:10 %	No. 1, Large, Japanued		g Patent Auger, Ives'. "" Douglass'. Swan's	dia nefero C	
" Douglass'dis 40 %	Partiament Butts	dis 50&10 %	Challenge (Coll)- No	82.00 2.90 3.50 4.00 4.50 5.00 dia so 9	Hangers.	Manager of	Norwish
Morse's Bit Stock Drift, List of May 15, '78dis 25 % L'Hommedieu's Ship Augersdis 15 %	cose Pin no Acorn	dis 50&10 %	Japanned	3.50 4.00 4.50 (LLB 30) 5.50 6.00 7.00	Novelty Challenge Climax (Anti-Friction). Sterling Improved (Anti-Friction		Maintry, Wheeler & Co
Watrous Ship Augersdis 15 S	- Japanned	dia 55&20 %	Premium (Coil)— Nos Japanned # dos Nickeled	87.50 6.35 5.00 dis 30 5	Sterling Improved (Anti-Friction Cheritree	n)dis 60&10 %dis 70&10 %dis 40&10 %	Yale Lock Mfg. Co.'s "Standard"dis 40 % Romer'sdis 30 %
Bawing, Brass Ferrule \$3.50 \$ gross—dis 402:0 \$	WROUGHT IRON.	dia 45 %	No. 4, ("Shoo Fiy") Screen doo	or size w doz \$1.75 dis 25 %	Harness Snaps.	d to 14.00, dis 5582 \$	Romer's dis 50 S Conestoga dis 60 S J. H. Ro'Williams dis 10 S Edarnos & Diets. dis 10 S Mallets.—Hickory and Lignumvites. dis 20 S
Patent Sewing, Short	Lt. Narrow	dis 60 %	No. 6, Medium. No. 7, Large. Sabin's Lever. No. 1, 81; 2, 88 Sabin's Bos. No. 1, 84, 40; 2, 8 Sabin's Crows. Philadelphia. ; 1a. Barker's Coucealed. Evently. No. 1, 818,00; 3 Rubber. complete.	dos 3,50 l	Judd's Fitch's (Bristol) Hotchkiss'		Ment Cuttern.
Peg Piain Top\$10.00 \$ gross—dis 40&10 \$ " Leather Top \$2.00 " dis 40&10 \$	Loose Joint, Broad	dis 60 %	Sabin's Crows,	# dos \$2.75, dis socio 9 , \$5.00; 8 in., \$7.00, dis 35 9	Andrews' Sargent's "German		Ment Cutters. Dixon's (P. S. & W.) Nos. 1 2 3 4 # dos \$14.00 17.00 19.00 30.00—dis 25 %
Awls, Brad Sets, &c.	Inside Blind, Regular	dis 60 %	Fowell'sNo. 1, \$18.00; b Rubber, complete	io. 2, \$15.00 \$1 doz. dis 50 5 \$1.90, mei	Covert Hatchets. Isalah Blood. Shingling. Nos. 1 2 3 \$ d	dia 35 %	Miles' Challenge Nos. 1 2 3 4 00 0 0 1 1 2 3 4 0 0 0 0 1 1 2 3 4 4 0 0 0 0 1 1 2 3 0 5 0 1 1 0 0 1 1 0 0 0 0 0 0 1 1 0 0 1 1 0 0 0 0 0 0 0 1 1 0 0 1 1 0 0 0 0 0 0 0 0 1 1 0 0 1 1 0 0 0 0 0 0 0 0 0 1 1 0 0 1 1 0 0 0 0 0 0 0 0 0 1 1 0 0 1 1 0
Bewing, Best W gross 2.95—dis 15 %	Loose Pin. Wrt		Crossroan a No. 1	dia 6skto 4	Claw, Nos. 1 2 3 # d	los 7.75 8.40 9.25	Woodruff's (P. S. & W.), NCS, 100 150
Patent Peg		ncydis 20 %	Merrill	die ao S	Shingling, Nos. 1 2 3	log 87.95 88.00 88.75	Hales'Nos. 11 12 13 14 56.60dls 40.82&10 \$ Draw CutNos. 5 2 5 10 Each\$10.00 75.00 80.00 225.00 480.00—dls 20 \$
Handled Brad	Gem Spiral Spring Butts, Japanned " " Ornamental	dia 20 %	Douglass	dia 05/85 %	Bulleting, Nos. 1 2 3	log #8 on #8 so #n on	American
" Socket Scratch	Geer's Single and Double Acting Sabin Mfg. Co.'s Double Acting	dia 35 %	Blacksmiths' Self Feeding		Lathing, Nos. 1 2 3 # d	los 8.00 8.50 9.00	Silver & Demingdis 25 %
No. 42, \$10.50; No. 43, \$12.50dis control	Union Spiral Spring, Japanned Ornamental		Dreast, F. B & W.	dia se 4	Shingling, Nos. 1 2 3	log 8.00 8.50 10.00 %	Mincing Knives. Am., 1 blade, \$12; 2 blades, \$21; 3 blades, \$30 per gross
1	Union Spring Hinge Co.'s	dia 25 %	Preast, Wilson's	TO DESCRIPTION OF THE PROPERTY	Shingling Nos orga & dos	7.50 \$8.00 \$8.50 \$9.00	gross
Axes. Light. Med. Heavy. M. H. Jones & Co	Bommer's	dia ac d		dis 25 %	Claw, Nos. 123	0.00 0.50 10.00 8.00 8.90 0.00 9.00 10.00 12.00 14.00	
Ploods 14.00 14.90 13.00	Palmer	din 37%kisc \$	" Weston's Moore's Triple Action Whitney's Hand Drill Wilson's Drill Stocks Automatic Boring Tools	ndis 30 @ 25 \$dis 50 \$	Collins Shingling, Nos. 1 2 3	OZ \$6.40 \$7.60	Bush's
Common (Guy C. Hotchkiss, Field & Co.) B B 31/c Solid Collar, Case Hardened, Chilled Box B B 80	# Shepard	dis 66%kto %	Drill Chucks.—Morse's Bo	each Patent dis 30 %	Lathing, Nos. 1 2 3	108 0.00 0.90 7.00	Weed's dis 15 \$ Nais See Trade Report Nuts and Washers. See Go off list Square Nuts.
Axle Grease.—Frazer's	" Nicholson	dis 40kto %	Danbury		"Lightning". Wadsworth's.		Washers 6c off list
Hells.	Clark's, Nos. 1, 3, 4, 40 and 4 Buffalo "Noiseless" Sargent's No. 12	dis soltio %	National per grow	# do dis 33½ 5 ss, \$33; per dos., \$3.00 net	Hinges. Gato, Western	dos \$10.13, dis 60&10 \$	Nut Crackers Table (Humason & Beckley Mfg. Co.)
Extra Heavydis 60&c&zo 5	Bow Pins		Elevator Buckets. Mill E. Buckets, light, 3% to Mill E. Buckets, heavy, 5 to 10	to in. (Duc's Improved)	Gate, Clark's No. 1	dos \$6.10, dis 60\$10 \$\$ dos \$13.50 dis 40 \$	Hlake's Pattern. Turner & Seymour Mfg. Codia 10 5 Onkum. Bost.
" Silver Chimedis 20&10 %	Humason, Beckley & Co.'s (low list) Sargent & Co"e	COLUMN OU B		At CIOR \$4'00 (R \$10'30' tree		dos \$7.00, dis tok10 \$	U. S. Navy 10 15 160
Gong, Abbe'sdis 20&10 % Yankeedis 30&10 %	Butchers' Cleavers.	Ala se s	Emery and Emery Pape Genuine Chester—Regular No "Flour and I in 10-lb. can Washington Mills—Regular N	FF 9 B	Rolled Plate		Oliers. — Zinc and Trn
" Sarton's	Bradley's Beatty's \$ 3 4 5 0 \$16,50 10,00 21.40 24.00 27.00 30.00	7 8	Washington Mills—Regular N Flour Wellington Mills, Grain	OS W D SC	I Thendense M Cover to in Oc. Co	# 100 bdis 10 %	Broughton s Malicable (Hammer's) dos \$5.00, dis 10 % Prior's Patent or 'Paragon," Zinc
* Brook's dis toktok's * Cone's dis ros * Conel's dis toktos	Can Openers, 24	or so on dia or s	Hampien Emery Grain B. & A. Emery Paper		SCIEW MOOK and of to, 12 mm, 4	55 W 100 B dis 10 S	Ox Bails
Lever, Sargent's, new list Dec. '76dis 60& to % Taylor's Bronse or Plated Levernet	American	25C. dis 15@20 %	Amendad and Banned L	Wave.	Screw Hook and Eye	n. 120 dis 10 %	Pencils, Faber's Carpenters'
" Japanned Leverdis 25210 %	Lyman's William William	OE \$3.75, dis 40 % DE \$2.25, dis 60 % Gross \$6.00 net	Sauce PansTinned Sauce Pans	dis 35 %	Hoes,—Solid Shank, C. S	n. # doa #5.25, dia 15 %	Lumber
Puli, Brook'sdis 50E10E2%	Eureka de de Sardine Scissor de de Star de de Star de de Star de de Star de	oz \$2.50, dis 10 % oz \$7.00, dis 55 % oz \$4.00, dis 25 %	Escutcheon Pins.		Hoes,—Solid Shank, C. S. Socket. Riveted Shank. Grub	# doz 3.25 dis 15 %	Picture Nails. Property Research Street Str
Caildis 25 %	Sprague		Brass. & Acutcheons. Door Lock	discounts as Door Locks	Riveted Shank Grub. Planters' Scovill Pattern Scovill Pattern, Handled Hick's Pat. Solid C. S. Planters' Scovill Pat	dis 25 6 30 5	Picture Ng.lie. dis 4x2:05 Brass Head. Sargent's List. dis 4x2:05 Brass Head. Sargent's List. dis 4x5:05 Porcelain Head. Sargent's List. dis 4x5:05 Yudd's List. dis 305 Porcelain Head. T. & B. Mfg. Co. dis 305 dis 305 dis 305
1 Western dis soltio 5	U. M. C., F. C. trimmed	700 \$ &4 %			Winsted & Lane, Planters Beovill Pattern.	dia accord	Pinking Irons # doz 750, pet
	G. D. & S. B. Double Waterproof, in 1-10*s. Colt's Pistol, Musket, 1-10	650	Fenn's Cork Stops	dis 40 %	Hooks.	dis 60&10 %	Plaiting Machines. # dos \$10.00, net Magle
Dodge's Genuine Kentucky, new list- Nos. o 1 1½ 2 3 4 5 6 Hog 2 dis \$12.00 10.00 9.00 8.00 6.00 5.00 3.90 2.50 5.00, 5	Colt's Pistol, Musket, 1-10 F. L. E. B. 1-10, Trimmed. E. B. 1-10 Ground Edge.		Frary's Patent Petroleum Wood and Metallic West's Patent Key Metallic Key. Leatner Lined	dis 20#10 % dis 40 %	Cotton	Handle Wks), dis 30 % . Co.)dis 40 %	Crown Platting Machines
Yaw's Genuinedis	Carriages, - Metalic	dia salekto 4	Metallic Key, Leatner Lined Cork Lined Enterprise (Self Measuring)		Cotton, Fatented (N. Y. Mallet & Cotton, Fatented (N. Y. Mallet & Cotton (Humason & Beckley Mfg Belt, (new list) % C	dis 10 % I	Pianes and Piane Irons. sence, First Quality
· Wilson's (Moore's)dis	Cotton		Felloe Plates		** McGill's, \$3.00 \(\) dos	dis 20 %	Railey's Staniey R. & L. Co.) new tist Jan. '79.dis 7:&10 % The Stanley (S. R. & L. Co.) "dis 25&10 % Setlay's "Victor" dis 25&10 %
Blacksmiths', Common	Carpet Stretchers. Cast Steel, Polished	08 \$5.00, dis 50 %	ArburnArcade	#Coo to & dis 35 %	" Reading Mat Ceiling Sargent's list Harness. Reading list Coat and Hat, Sargent's list	dis 3354210 \$	Defiance Adjustable, new list. dis 25%10
Moulders	Casters. Bed. Plate and Shallow Socket. Deep Socket.	dis 30&10 %	Madden & Cockayne File Co		Reading Co's lis	d	** Auburn Tool Co.'s
Belting. Rubber. N. Y. Belting and Packing Conew list not	Deep Socket	dis 20210 %	J. & Riley Carr		Tassel (T. & S. Mfg. Co.)	tarties dis folloss	Denance dis 2caro 6 Middletown Tool Co dis 2 a ro 6 Ohio Tool Co dis 20 a ro 7 Bpear & Jackson's \$500 for £ Bandusky Tool Co dis 2caro 7
Bit fielders.	Hotchkiss' Sons'	dis tokto \$	Walter Spencer & Co.'s "Diam Fisher's. Moss & Gamble H. Disston & Sons (new list)	4.50 to £ 4.75 to £ 4.50 to £	Wire Screw Rooks and Eyes, new Grass and Bush. Whiffletree—Patent. Hooks and Eyes—Malleable Iron. Brass.	dis 30&10 %	Pliers and Nippers.
M IA68, A GOZ \$12'00GI2 \$0 3	Chain,	air 790 }	Western (new list)	dia as S	Hooks and Eyes-Malleable Iron. Brass	dls 6okto % E	Sutton's Patent. dis 3345 5 fall's Patent Nippers, No. 1, \$15; No. 2, \$21 \$ dos, dis 254 5 furnason & Beckley Mig. Co. dis 3246 \$ fas Pilers. dis 35 \$
Anguiar	German Halter Chain, New list Oct. 22, '79.	air 86c)	Limet & Co. (French) Lightning Files, 5, 8 and 10 in		Horse Nails. Nos. 5 6 Ausable	7 8 9 10 30 240 230 220 dis	Aumason & Beckley MIG. Co.
			Know Ainch Rolls	4.00 " dis 10 %		6e 25e 24e 23e 20 19 18 18 18e dis	" End Cutting Nippersdis 26 % " Tinners' Cutting Nippersdis 20 % Plumbs and Leveis.
old pattern	Oueida Halter Chain. Galvanized Pump Chain. Jack Chain, Iron. Hrans.	dis 60&10 %	Peerless, 4-inch Rolls	4.00 each net	Nos 1 2 3 4 5 6 7 Bridgewater Iron Co. Nos. 5 Pointed and Polished 3 250 23		Maston'A
Mackrell's doz. pairs, \$0.05, dis. 10 5	Chalk. White	F gross 550 net	Eureka. No. 1, 7-inch Roll		Cortland P't'd & Blued. 260 230 2	7 8 9 10 10 200 190 180 7 8 9 10 dts p	Paptin's Patent Adjustable
Bilind Staples. Barbed, % in. and larger	Red	# gross god met # gross 140 met	Peerless, 4-Inch Rolls. Eagle, 34-Inch Roll. Eureka. No. 1, 7-Inch Roll. No. 2 - Inch Roll. Crown. 45-In. \$5.00 - In. \$5.00 Crown Jewel. American, In. \$3, 6 In. \$4.00 Geneva Hand Fluter, No. 1. Crown Hand Fluter, No. 1, 8.	o; 8-in \$6.50 each dis 10 %	Cortland P't'd & Blued 260 236 23 Globe (New list) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	21 20 10 18C 10 8 21 20 19 18 dia J	tandard Rule Co. '8 New Adjustable dis 60x10 % tandard Rule Co. '8 New Adjustable dis 60x10 % Non-Adjustable dis 60x10 % Non-Adjustable dis 60x10 % Oneson's Patent Adjustable dis 60x10 % Ocket Levels dis 60x10 %
331 - des - Burr & Codis 25& 10 %	Socket Framing, Crossman	ew list. dis 25 \$	American, 4 in., \$3; 6 in., \$3.40 Domestic Fluter	; 7 in., 84.50 each, dis to %	Finished	21 20 19 18c net 20 20 19 48 170 net	Post Hole and Tree Augers, amson Post Hole Diggerper doz \$36.00, dis 20 \$
Differential Pulley Blocks	Witherby Tool Co Pirmers, Crossman. Buck Bros. Buck Bros. Buck Bros. Buck Bros. Buck Bros. Buck Bros.	dis 70 %	Crown Hand Fluter, Nos. 1, \$1	15.00 : 2, \$12.50 ; 3, \$10.00 No. 75 % doz \$20.00	National. Pointed and Polished, Fat. Fin 38 25 Putnam Hammer, P't'd 38 25 Vulcan P't'd & Blued. 25 28	23 22 21 200 10 % V	Post Hole and Tree Augers. amson Post Hole Digger
" alisteel roll'r.dis 10 %	Buck Bros D Merrill. Witherby Tool Co	ew list. dis 25%	Geneva Hand Futter, Nos. 1, 81. \$ dos. Shepard Hand Fluter	so; No. 100, 86 W dos net	R. I. Horse Shoe Co., Perkins' Imp	roved Light,	Potato Purers, &c.
A Iron Green'd discriment	" Donglass"	dis oses 5	Combined Fluter and Sad Iron Buffalo	# dos 14.00, dis 30 %	Medium and Heavy Mule Shoes Perkins' Snow	W keg 4.6236	ay State Saratoga" Preier and Slicer # doz \$13.00 dis 10 %
Belts. Cast iron Barrel, Shutter. &c	Tanged Firmers extra. Butcher's	5,00 @ \$5,25 to £	Forks. Hay, Manure and Sp./ling Pinted" A. I. Rogers & &ro	new list, dis 15 %	Tee Awis, Chiseis, &. American Ice Chisei	doz. \$6.00 dis 45 % D	isston's Combined Fruning Hook and Saw per doz \$18.00, diszo \$
Bush's Lever and Chain Boltsdis 40, 10810 %	Clamps.	dia ac @	"Reed & Barton "Fruit and Jelly Presses. Enterprise Mig. Co		Novelty Ice Breakers White's Sliding Head Picks Duniap's Ring Picks	# dos \$6.25 dis 20 \$ # dos \$2.50 dis 40 \$ dos \$3.00, dis 40 \$10 \$	runing Shears 11.50, dis 20 %
Square	Adjustable, Gray's	dis 20 %	Fry Pana.	dis so \$	Wood Head Picks, Sargent's 7 do Iron and Joseph Head	s 81.85, discontrol 5 J	udd's Axle
Brass Knob, " dis 20210 %	"Hammer's." "Stearns' "Cabinet, Sargent's." "Carriage Makers', Sargent's." "Cord and Tape (T. & S. Mig. Co.)	dis 15 %dis 66% & 10 %	P dos\$3.00 \$3.75 4.25 4.75 Acme Patent, same list as abou	5.25 6.00 7.00 8.00 0.00	Pick in Handle Ice Axes Small, Cast or Maileable Kitchen ice Tongs	\(\psi\) dos 3.00 net \(\begin{align*} \text{B} \\ \text{OS 1.20 net} \\ \text{J} \\ \text{OS 2.25 net} \end{align*}	rass Screw dis colto 8 april Bide dis folks: 5 Clothes Line die 65/kro 8
Sunk Flush, Sargent's dis 60kto \$	" Cord and Tape (T. & S. Mig. Co.) Clips, 'Axie.	dis 30 %	Gauges.	dis sokto \$	Combination Ice Tools	uor \$2.50 dis 30210 % H	ag State # doz \$13.00 dis 10 % Saratoza "Peeler and Slicer # doz 7.75 dis 10 % Pruning Hooks and Shears. Biston's Combined Fruning Hook and Saw per doz \$18.00, dis 20 % Funing Shears # doz \$4.50@\$5,00 net Pulleys. udd's \$x!e # doz \$4.50@\$5,00 net Pulleys. udd's \$x!e # doz \$6.50@\$5,00 net Pulleys. udd's \$x!e # doz \$6.50@\$5,00 net Pulleys. udd's \$x!e # dis 60.810 % for House and Tackie # dis 60.810 % ap'd Screw
B.E.Fiush Com'n, Staniey's dis45%	Norway or Best	dis 60&10%	Wire Smith's Patent	dis 10 %	Rettles. Brass, 7 to 13 inches Inclusive Brass, larger than 13 inches	dis testro 8	bade Rackdis 20 %

	esale Prices, N	
*		N
18	Globe	:
8 8 8	Board and Boxdis 20 %	
2 2	American (Enterprise Mfg. Co.)	F
14	Componen Dividery &c.	R
3 3	Compasses dis socie s Callipers dis socie s Callipers dis socie s Dividers dis socie s Bemis & Call Co.'s Dividers dis socie s Compasses & Callipers dis socie s	v.
et %	" Doubledis 60 %	
5	Muler's Patentdls 25 %	OH HE
KK	Corn Matyes and Chiters, - Brauley s. dis to 2	Mi
18	Iron, Steel Points	He
* * *	(4) %, % in. \$1.50 2.00, 2.40	Pr
× 4 8	Curry Comens	Ro
15 15	Fitch's (List of No. 220, \$1). dis 20 % Hotchkins' Novesty. dis 20 % Hotchkins' Novesty. dis 20 % Lawrence. dis 20 % Lawrence, with detachable Mane Comb. dis 33 % S divber. % doz \$0.00, dis 22010 % Curinin Pins,—Silvered Glass. dis 15 % White Enamel. dis 15 %	Ja
%	White Enamel	Ba W Su Fli
4 4	Cuttery. Meriden Cuttery Co. (Table)	Sa Bo Ha
× ×	Der Collars. dis 20 % Embossed Gilt dis 20 % Leather dis 30 % Brass dis 24 % Deer Swrings.	Hi
%	Brass Deor Springs	Boo
* * *	Bee Rod	Pil Au Pa
* * * *	Bee Rod.	Ba
* * *	Galvanized	Ba No Ch Cli Ste Ch
K K	Nickeled	Ch Kid
2 2 2	No. 5, Screen Door size. 7 dos 2.50 No. 6, Medium. 9 dos 2.50 No. 7, Larke. 9 dos 3.50 Sabin's Lever. No. 1, \$1; 2, \$1.50; 3, \$2; 4, \$2.50; dis 35 \$	He Jud Fit Ho
5 5	Sabin's Boss, No. 1, \$4.40; 2, \$4.30; 3, \$3.00. dis dokto \$6.50 kgbin's Crow B, \$6.50 kgbin's Crow B, \$10.50 kgbin's Crow B, \$10.50 kgbin's Good Basker's Concealed \$10.50 kgbin, \$7.00, dis 35 kgbin's Good Basker's Concealed \$10.50 kgbin's Good Basker's Good Bas	Saz "G Co
-	Eowell'sNo. 1, \$18.00; No. 2, \$15.00 of dox, dis 40 x Rubber, complete	Isa S. C
16 16	Drawing Knives. dis 65&to 6	Hu 8
1 1 1	Witherby Tool Co	Hu
6 6	Dorulass	M.
	Preast, Wilson's	Sin
	" Ingersoll's	L
	Whitney's Hand Drill. dis 50 % Wilson's Drill Stocks. dis 10 % Automatic Boring Tools. each \$2.75, dis 30 %	Col
	Orili Chucks.—Morse's Beach Pakent. dis 30 5 Onliury.—Adjust.—each \$10.00, dis 30 5 Danbury.——\$2.00, dis 30 5 Pag Heaters. Pational.——\$2.00 dis \$3.00 net Family.——per gross, \$33; per dos., \$3.00 net	"L Wa
	Dover. gross, \$42.00; des \$4.00 net	Gai
	Fievator Buckets, Mill E. Buckets, Hight, 3% to 10 in. (Due's Improved) \$\frac{1}{2}\$ 100 \$15.00 \$	Gai
	Storehouse, (Duc's Patent) 12 to 17, \$13.00 @ \$10.20, net Emery and Emery Paper. Genuine Chester—Regular Nos	Rol
-	Storehouse, (Duc's Patent) 12 to 17, \$13.00 @ \$20.00net Emery and Emery Paper. Genuine Chester—Regular Ros	Rol Wr Pla
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Tinned and Enameled	
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Gun Wads. U. M. C. B. E. 11 up. \$2.00 1	
Ammers. New List of Dac. 10ta, 1878. dia 15.7	
Covert's Pat. Ropedis 50 5	
Hand Cuffs and Leg Irons. Providence Tool Co.'s Hand Cuffs, \$15.00 \(\pi \) dos \(\) dis 10 \(\pi \)	
Handles.—Door er Thumb Latches— Nos	200
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8.4	Knives. Ames' Succher Enives
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7 元英	Knobs. Carriage (Jap'd Soc. \$\pi\$ gross). dis 50 cutlery Knobs. Carriage (Jap'd Soc. \$\pi\$ gross). dis 50 co 5 Basse-Common. dis 30 co 5 Hemacite Loor Knobs. New list, dis 30 co 5 Hemacite Loor Knobs. New list, dis 30 co 5 Hemacite Plated. " Por. Jap'd. Same discounts as Door Looks. " Porniture Plated. 75c gross inch, dis 10 gross inch, dis 20 co 5 Picture (T. & S. Mfg. Co.). dis 40 co 5 Hemacite Picture. dis 35 co 5 Hemacite Picture. dis 35 co 5 Shutter, Porcelain. dis 50655 co 5 **Shutter, Porcelain. dis 50655 co 5
A 15 15 16	Furniture, Plain
	Picture (T. & S. Mfg. Co.)
K	Melting—Sargent's
266	Monroe's Patent
4555	Peerless
2 2	Police. Small, \$7.50; Med., \$9.00; Large, \$1200; dissouto \$
3	Lemon Squrexers # dos \$4.00\$4.50 net
	Lemon Squeezers P. dos \$4.00@4.00 net Eureka Tinned P. dos \$4.00@4.00 net Eureka Tinned P. dos \$4.00 dis 10.5
	Wire Ciotnes, Gaivanizedeach 40 de 40c net Locks and Latches, Cabinet-Eagle, Reduction in list of some
-	Gaylord numbers March 1, 1879. Bridgeport
	Langstroth & Crane's List Jan. 1, '77. Round Key, No. 1 to 5
	Wire Clothes, Gaivanized.
	DOOR LOCKS, &C. dis 45&2 % Norwalk dis 45&2 % Norwalk dis 45&2 % Norwich di
	Branford. dis 5,62 5 Norwalk. dis 5,63 5 Norwa
	Mallory, Wneeler & Co and 2 % for cash Wm. Wilcox & Co 'a Yale Lock Mfg. Co.'s "Standard"dis 40 % Romer'sdis 30 %
	"Conestoga
	Ment Cutters. Dixon's (P. S. & W.) Nos. 1 2 3 4
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	Draw CutNos. 5 2 5 8 10 Each\$10.00 75.00 80.00 205.00 400.00—dis 20 % American
	American
1	Am., 1 blade, \$12: 2 blades, \$21; 3 blades, \$30 per gross
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	Navv
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	Pencils, Carpenters
г	W V Beiting and Packing Conew list not
	Picture Nalls. dis 4c&to 5 Brass Head. Sargent's List. dis 4c&to 5 T. & S. Mfg. Co. dis 40 5 Porcelain Head. Sargent's List. dis 4c&to 5 "Judd's List. dis 4c&to 5 Porcelain Head. T. & S. Mfg. Co. dis 30 5
	Pinking Prons PGS 74C. DGS
	MPlaiting Machines. Astor Plaiting Machines. Crown Plaiting Machines. Crown Plaiting Machines. Gin, \$6.00. 10lin, \$10.00.0ach dis 20 \$
	Planes and Plane Irons. Bench, First Qualitydis 35 1 Extra dis. 10 % for Second of Second
	Balley's (Staniey R. & L. Co.) new list Jan. '79. dis ~&10 % The Stanley (S. R. & L. Co.) "dis 24&10 % Balley's "Victor"
1	Plane Irons, Butcher's. \$5.40 to \$2 "Buck Bros. \$5.00 to \$2 44 Auburn Tool Co.'s.
	6in., \$0.00. ioin., \$10.00.0ach Planes and Plane Irons. Benca, First quality
1	Pliers and Nippers. Button's Patent
0 1 1 1	Pilers and Nippers
- 00	Plumbs and Levels.
	Chapin's Patent Adjustable
100	Post Hole and Tree Augers. Samson Post Hole Diggerper doz \$36.00, dis 20 \$ Post Hole Augers
The name	Fletcher Post Hole Augers
1	Potato Purers, &c. Say State W doz \$13.00 dis 10 % Saratoga" Peeler and Slicer W doz 7.75 dis 10 %
	Pruning Hooks and Shears. Disston's Combined Fruning Hook and Saw per doz \$18.00, disso \$
	Pruning Shears
M TOP	radd* gxzie

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November 6, 1879.	
Punches. Rett or Drive	Shevels and Tongs. Found Brass Head, R. & E. list
Punches. ne't or Drite Bemis & Call Co.'s Cast Steel Drive	Square Frames, Pound Cornered, by casedis 70 % Less than a case
Bemis & Call Co.'s Spring and Check	Spoke Shaves. Defiance Metallic
Ralling Door Wrought Brass \$\psi\$ and dis ic Fron, Painted \(\psi\$ foot cc. dis 6c2 to Barn Door, \(\frac{4}{5}\), \$\frac{4}{5}\) and \$\frac{4}{5}\ (\text{int} \)	
Rates	
\$3.60 4.00 4.40 Razor Straps.	Bertannia
Razor Straps. dis 40	W. Rogers & Bon, A. A. 。 dlis acをま会 を Reed & Barton 。
Tritation Emerson	German Silver. dis 30% cock 5 Cast Steel, Sil. Plated dis 33% 5 Diamond Steel (L. Boardman's Sons), dis 20% 5 dis 20% 5
Reunder's	\$ Tin (P. S. & W.), Feas
ron and Tinned new list Oct. 1, 1879	Tinned Iron
### A STATE OF TIME OF THE PROPERTY OF THE PRO	Hindostan Stone
Rivet Setsdis 50 2	Sand Stone W b 6c dis 3314 to 6 Washita Stone No 1, W b 18c net
Stair	" Silps. No. 1, ₱ m 36c net Washita Stone (Boyd & Chase) No. 1 ₱ m 15c net " mo'ted (Boyd & Chase) 6, 7 & 8 in, dis 30 %
Rollers. Earn Door, Sargent's list. dis 5,520 9 Novelty. dis to 9 Acme (Anti-Friction). dis 4,5	
Acme (Anti-Friction). Kape. Manufacturers' Net List. Nov. 1, 1879 Manifa	Grindstones. Family, Loring's
Tar'd Rope	Joseph Dixon's
** Hay Rope \$ 12 \(\) 4 and 4-16 lach \(\pi \) 12 \(\pi \) 12 \(\pi \) 13 \(\pi \) 14 \(\pi \) 14 \(\pi \) 14 \(\pi \) 15 \(\pi \) 17 \(\pi \) 17 \(\pi \) 18 \(\pi \) 17 \(\pi \) 18 \(\p	Stove Foliah
Hay Rope	Dixon's Plumbage \$\Pi\$ 8c. net \[\text{Squares}. \\ \text{Steb} \\ \text{dis \no \fi}; full cases, \text{dis \no \fine
Braniey	Try Squares and T Beveis. dis co&10 % Star Try Squares and Beveis dis 55 % Disston's Try Squares and T Beveis. dis 55 %
From 4 to 10 lbs	Winterbottom's Try and Mitre
Sad Irons. From 4 to 10 lbs. From 4 lbs. From 5 lbs. From 6 lbs. F	Winterbottom's Try and shire dis 25,210 5 Tacks, Hrads, &c. List of Oct. 21, 1879; Swedes Iron Tinned Tacks dis 50 5 Swedes Iron Tacks, all kinds dis 45 5 Swedes Iron Tacks, all kinds dis 45 5 Gmp and Lace Tacks dis 45 5 Copper Tacks and Nails dis 40 5 All other Tacks, &c. dis 40 5 Double-Pointed Tacks dis 40 85 5
Band Paper. Baeder & Adamson's Flint, co to 114\$4.25 \(\Pi\) ream	All other Tacks, &cdis 40 %
Hand Paper. Bacder & Adamson's Flint, co to 1\(\)_1.\(\)_4.\(\)_5 \(\) \(\) ream \\ \begin{align*} \text{discrete} & \text{2.2\(\)_6 \(\)_3. \(\)_4.75 \(\) \(\) ream \\ \text{discrete} & \text{Assorted} \(\)_4.25 \(\) \(\) ream \\ \text{discrete} & \text{3.25} \(\) \(\) ream \\ \text{3.25} \(\) \(\) ream \\ \text{6.50} \(\)_6 \(\)_11.\(\)_6 \\ \text{New England, same list as B. & A. Flint \text{discrete} \)_6.30 \(\)_6 \(\)_6 \\ \text{3.26c's} \(\)_6.30 \(\)_6.5 \(\)_6.5 \(\)	Common and Ring dis 20&10 \$ Ives' Tap Borers dis 24&10 \$ Enterprise Mfg. Co. dis 20 \$
Gage's	Tap Borers. dis 20&10 5
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forthup Window Springs\$5.00 per gross, dis 10 g the Perfect, Clark & Smith, Plain Jap'd \$\pi\$ gro \$10.00 net Por.Knob Jap'd. \$\pi\$ gro \$14.00 net	Traps dls 50 5
" Nickel-Plated # gro 27.00 net Sash Weights.—Solid Eyes # 3 20	# Blake's Patentdis 40 % Mouse, Wood. Choker
Sausage Stuffers or Fillers.	"Catch-em-alive. \$\foxed{Q}\$ dos \$2.50, dis 10 \foxed{g}\$ Rat. "Decoy" per dos \$10.00, dis 10 \foxed{g}\$
nterprise Mrg. Co	Trowels. Lothrops Brick and Plastering. dis 20 % Reed's Brick and Plastering. dis 1; % Disston's Brick and Plastering dis 20 %
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oynton's Lightning Cross Cuts, new listdis 15 \$ One-Man, alt lengths, 'dis 20 \$ Billet Webs, 30 indis 90 \$ Lightning Buck Sawa X Rapdis 26 \$ 15 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Trowels. Trowels. Lothrone Brick and Piastering. Lothrone Brick and Piastering. dis 15 % Reed's Brick and Piastering. dis 15 % Disston's Brick and Plastering. dis 20 % Peace's Plastering. dis 20 % Peace's Plastering. dis 20 % Rose's Brick. dis 20 % Brades Brick. dis 15 % Worrall's Brick and Plastering. dis 20 % Rose's Brick. dis 20 % Brades Brick. dis 46 % Triers. dis 46 % Triers.
	Butter and Cheese. dis 25% Vises. Solid Box. List. of July 1, '70 dis 20 %
Vingston's Butcher and Kitchen	"Crown" (A. H. Hildick) 4 to 100 %, isc dis 20 % "Peter Wrights
hite, Vermont	Butter and Cheese. dis 25 Vises. Box. List. of July 1, 79 dis 90 t Solid Rox. List. of July 1, 79 dis 90 t "Crown" (A. H. Hiddek) 4 to 100 B, 50 dis 90 t Parallel, Parker"s. dis 20 t "Howard's dis 20 t "Howard's dis 20 t "Merrill's dis 20 t "Herrill's dis 20 t Hopkins' dis 20 t Hopkins' dis 20 t Veniliators.
ia w Sets. ynton's Patent X Cut, per doz. \$12.00; Hand Saw,	Backus and Union dis 26 Fisher & Norts dis 15 to 5 Stevens dis 15 to 5 Stevens dis 15 to 5 Stevens dis 15 Steve
iliman's Genuine	"Family." List. net Saw Filers, Bonney's. \$\P\$ dos \$24.00, dis 20210 \$ "Stearn's. \$\P\$ dos \$24.00, dis 20210 \$
mmer, Hotchkias	Hopkins' → dos \$17.50 dis to \$ Lowell Hand Vises
w Rooffs Saw Mets. Span Mets. Spa	Protective (upper per foot \$1.00
rt's Patent Leverdis 20 % iston's	Venifiators. Protective (upper per foot \$1.00
nion Platform\$6.00. dis 50 %	Weather Strips.
Montes M	Well Wheels,—Revised list
" Favorite dis 45 % " Turabull's dis 35 % Me Beams, Chatillon's list dis 25 %	Bright and Annealed Nos. o @ 18. dis45 @ 47% S
Sargent's listdis 40&10 % terapers. justable Box Scraper (S. R. & L. Co.), \$6.50 dis 20&20 %	Mos. o 60 18.dis 40 424 5 5 6 18.dis 40 424 5 6 18.dis 40
Scrapers Scraper (S. R. & L. Co.) \$6.co.dis 2x&10 \(\) \(\	Cast Steel
p (common)per dos \$3.00 net (Providence Tool Codis 10 %	Galvanized Telegraph, Nos. 7 to 9 418 45 66 47 6 7 1
crew Drivers.	rence Staples. # B 6 @ 0%c Staples, Galvanized. # B 7% @ 8c Stybs Steel Wire. # 37.00 to £ gold Japanned Raph Fares.
ck Bros dis 25 d	Halvanized " # 11/40 to 12/40
crews. t H'd Irondis 50#10 %	Well Wheels.—Revised list. dis 60&105 Wire. Brass and Copper. List of July 1, 1878. dis 10 g Brass and Copper. List of July 1, 1878. dis 10 g Bright and Annealed Nos. 0 @ 18. dis 44 @ 47 % 5 Nos. 27 @ % dis 60 @ 674 % 5 Nos. 27 @ % dis 60 @ 674 % 5 Nos. 27 @ % dis 60 @ 674 % 5 Oppored Nos. 0 to 6. \$ \$ \$ \$ \$ 10 c dis 3 & 6 374 % 5 Nos. 7 to 18. dis 3 % 6 374 % 5 Nos. 7 to 18. dis 3 % 6 374 % 5 Cast Steel Nos. 10 to 18. dis 3 % 6 374 % 5 Cast Steel Nos. 10 to 18. dis 3 % 6 374 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 4 % 476 % 5 Cast Steel Nos. 10 to 18. dis 5 % 20 % 10 % 10 % 10 % 10 % 10 % 10 % 10
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anned, list of Plain Screws. dis 40810 8 for Common Coach. dis 55 8 ch Patent Gimlet Point, List per 100. dis 55 8	Collins & Co.'s. dis 45 % Coes Genuine. dis 65 %
chine, Flat Head, Iron, Am. Screw Codis 65 5 "Round Head, Iron, "dis 65 5 ach, Irondis 66 5 6	mecnanics dis 50&10 % Pattern, Malleable dis 7c&10 % Hrard Standard. dis 00&10 % Hrard Agl. 20 %
Wood, Beech # do# \$3.00, dis 15 5 1 1 1 1 1 1 1 1	Davis' Patent Duplex
panned. 18t of Piain Screws. dis 40st o 8 of Common Coach and 18 of 18 o	on Wagoner & Williams' Basin
crew Window Balances. b. Hugunin's, Single gro., \$23.94; 5 gro. \$22.68, dis 5 %	ne ravorite rocket (Bright)per dos \$8, dis 60 \$ Vebster's Pat. Combinationdis 31 \$ Wringers. Per doz. Per doz.
Iron, (American)	No. 1, " 54.00
ning. Scissors. see Fruning Hooks and Shears. ruard's Lamp Trimmers. # dog 82.7 uners' dis 25 misch Trimmers and Scissors, new list. dis 25	NO. 3, 71.00 NO. 4, 93.00 Inique, NO. 51.00 NO. 1, 54.00
heaves. ling Door, M. W. & Co., list	Totales Line Wire, Galvanised # coli to 6s 400 net Preen Wire Cloth, per sq. fsot, 30 @ 3\(\) met W renches met w renches met w renches met m
heaves. Img Door, M. W. & Co., list.	NO. 1 93.00 NO. 8
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ore's Anti-Friction (Hanging) dis 40 % 2 % Madelphia Hanging dis 40 % 5 % 2 % Novels and Finates.	ureks, No. 1 57.00 ovelty, No. 10, with Gog Wheels 50,00 No. 2, 63.00
ssey, Binns & Co., Patent. dis 15 kg. Marson and 15 kg. Kg. Marson and 15 kg. Kg. Marson and 15 kg. Kg. Kg. Marson and 15 kg. Kg. Kg. Marson and 15 kg. K	" No. 22 3,500 3,500 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
hove is and Spades. os. Now list, Jan. 1. 79, with changes of Oct. see, Now list, Jan. 1. 79, with changes of Oct. see, Binns & Co., Patent. dis 15 K Colony (changes in list Oct. 15, 79). dis 25 K Lington's (Lowman's Patent). dis 25 K Lington's Sloodes and Scoops. dis 2507 56 Own list of Patent. dis 265 5 K Ord Patent. dis 265 5 K St	No. 1e, Wood "Common Gear 60.00 She
" Patent. dis 4085 \$ Cord Patent. dis 4085 \$ St	Stamped Tinware.—New List Dec. 1, 1878. announced Stamped Ware

ESTABLISHED 1836.

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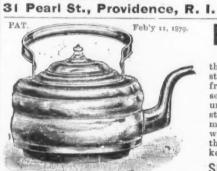
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'ry's Patent Tobacco Cutters, w England Gate Hinges, oolman's Patent Gate Hinges,

FACTORIES:

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Shepard's Patent "Reversible"
Gate Hinges
and Latches,
Nos. 10 and 25. Shepard's Patent

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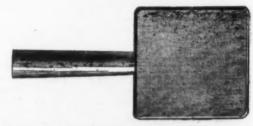
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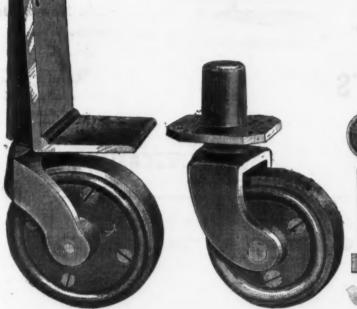
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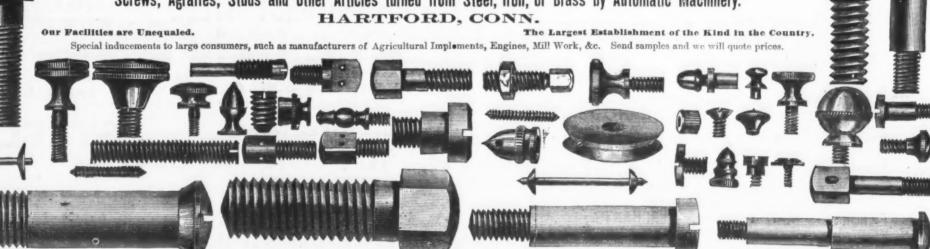
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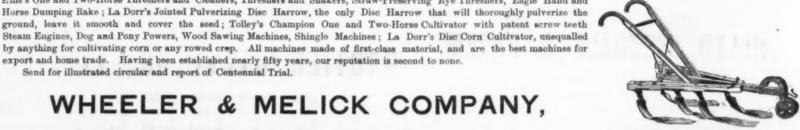
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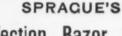
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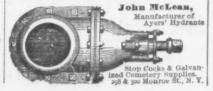
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LINSEED OIL.



TRADE MARK ntic White and Linseed Oil Co.,

White Lead (Atlantic), Red Lead, Litharge & Linseed Oil. ROBERT COLGATE & CO., 287 Pearl Street, New York



DUNBAR BROS.,

Clock Springs and Small Springs BRISTOL, CONN.

Torrey's Door Springs. P. R. DUNNE,



FILES AND RASPS. Filers' Tools & Specialties.

NICHOLSON FILE CO.,

Manufactory and Offices at Providence, R. I.

The following space will be used in illustrating our specialties, the matter being changed weekly.

FILE HOLDERS.

Patented June 12, 1877.



VISE PILE HOLDER.

The object of the inventions herewith illustrated is to provide a device in which files may be firmly held for service in surface filing, and while in this condition, readily sprung, in order to give, at the will of the operator, more or less convexity to the working face of the file.

By the use of this device it is not essential that files to be used upon broad surfaces should be selected with the care usually bestowed to obtain a true convexity or "belly" to their sides; the trouble of such selection every master mechanic knows to be especially annoying and vexatious.

By its use, also, files may be more fully utilized and made to render greater service than without it: 1st, By insuring full use of the side, which, were the file crooked, could not otherwise be obtained; and 2d, By being able, when the file becomes slightly dulled, by increasing its convexity to lessen the number of teeth brought to bear upon the work, thus causing the lesser number of teeth which bear to penetrate or "bite" the work, without increased labor bestowed by the operator.

The utility of the Surface File Holder will at once be apparent to the mechanic, in its application to broad cast-iron surfaces.

The Vise File Holder will also be found a useful tool, particularly the smaller sizes, as by its use the file may be sprung to a degree enabling the workman to file in the exact spot required (always important where nicety of finish is requisite), in fact, utilizing the file in a manner never before accomplished.

These several file holders will be designated and their range of sizes understood by the following numbers:

Vise File Holder, No. 1, adapted to hold files 5 and 6 inches long. " 12 " IA " 12, 13 and 14 inches long. Surface File Holder, No. 4,

Bradley's Edge Tools.

Butchers' Cleavers, Butchers' Choppers, Axes and Hatchets, Grub Hoes and Mattocks, Mill Picks, Box Chisels and Scrapers,

Ax Eye Bush Hooks, Carpenters' Drawing Knives, Coopers' and Turpentine Tools, FOR SALE BY

MARTIN DOSCHER, LAgent, 96 Chambers Street, N. Y.



Co., Sasthampton, Ot Manufacturers of SLEIGH BELLS

House, Tea. Hand. Geng Bell &c. Bell Metal Kettles.

Established 1838

Bevin Bros. Mfg.

PHILADELPHIA. (Corrected Weekly by Lloyd, Supplee & Walton.)	Species
Terms, 30 days. For 60 or 90 days, interest added at 10 per cent. per annum.	Tinned
Anvils. Peter Wrights, ₩ b, gold	Philadelphia 5 in., \$5.00; 8 in., \$7.00 \$\times dos. dis 25 5
Apple Parers. Reading No. 72. per dox \$c.co net No. 74. \$c.co net	" No. 2, Medium Jap'd " 2.50 dii " No. 3, Small Jap'd " 2.00 10 5
Apple Parers. Reading No. 72. 10. 74. 10. 75. 10. 75. 10. 75. 11. 7. 50 net Little Favorit's, corer and slicer. Lots of 10 to 25 dozen special price.	Stove Polish.—Gem. # gross, \$4.50, dis 5 7 Dixon. 6.00, dis 10 5 Onvx
Lots of 10 to 35 dozen special price. Axes. Mann's Red Warriorper doz. \$9.00 net	Show Nails—4-8 and larger, 60; 314-8, 70 W S net
Axes. Mann's Red Warrior. per dos. \$0.00 net Red Indian. 9.00 net Red Chieftain, beveiled. 9.00 net S.50 net Auger Bits.	Genuine Onelda Newhouse die 20 5
Crown Prince. 9,0 ues Angers and Augers Bits. Bates' Nut Augers. dis 40kts 5 Cook's Augers. dis 40kts 5 Watrous' Ship Augers. dis 1 5 Benjamin Pierce Auger Bits. dis 30&to 5 Griswold Auger Bits. dis 30&to 5 Griswold Auger Bits. dis 40kts 5 Jennings' dis 50 Fox. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat. Hol. Augers, list \$45 \$40 c. dis 40 Stearns' Pat.	Vises.—Solid Box, Trenton new listdis 35 3 Wrenches.—Agricultural
Benjamin Pierce Auger Bits dis 30&10 % Griswold Auger Bits dis 40&10 % Cooks dis 40&10 % dis 50 % dis 50 %	Wrenchess - Agricultural dis 70
Jennings' o'dis 10, 10&10 ; Bonney's Pat. Hol. Augers, list \$48 \times dosdis 49 \times Stearns' Pat. Hol. Augers, list \$48 \times dosdis 25&10	Wire, Bright or Ann'd, No. o to 18
Light and Commondis 20\$10 \$	Coppered, o to 18dis 40 @ 42 %
Bells. Bevin Bros. Mfg. Co. Light Hand Bellsdis 70 % Swiss Pattern Hand Bellslow list dis 50 % Conneil's Door Bellsdis 40&10 % Gt. Western & Kentucky Cow, new listdis 50&5 %	Wringers. Novelty No. 10
Bolt and Bivet Clippers. Chambers No. 1. for \$ bolt each, \$7.50 1 No. 3, 11 \$ 8, 11 11 900 dis 25 \$	No. 2. 63.00 net Peerless, No. 294. 60.00 net No. 2 65.00 net
" No. 3. " 1/8 " " 12.00) Boring Machines. Upright, with Augers List 80.50 dis 40 \$	
Bering Machines. Upright, with Augers. Upright, with Augers. Angular, with Augers. Angular, with Augers. Mithout Augers.	Merchant Iron. TERMS.—Note or acceptance at 60 days, with current
Bolts,—Eastern Carriage Boltsdis 70%; \$, cash Philadelphia Stanley, Wrought Shutternew list dis 60% \$ 5 Stanley, Wrought Shutter	TERMS.—Note or acceptance at 50 days, with current rate of exchange on New York, or a discount of 2 per cent. for cash, if remitted within 10 days from date of invoice. Flat Bar.
Braces,—Barber'r dis 4025 g Backus dis 50 @ 50810 S Spoffard dis 50810 S	156 to 4 by 36 to 1 inch. 3.00 456 to 6 by 36 to 1 156 to 6 by 16 to 15 156 to 6 by 16 to 15 156 to 6 by 16 to 15 156 to 16 by 16 to 15 156 to 16 by 16 to 16 157 to 17 to 18 to 18 158 to 18 to 18 158 to 18 to 18 to 18 158 to 18 to 1
Butts.—Cast Fast Joint, Narrowdis 40k 10 % Broaddis 40, 10 k 10 % Broaddis 40, 10 k 10 %	134 and 134 by 34 to 34 " 5.10 1 and 134 by 34 to 34 " 5.20 3.20 34 and 34 by 34 to 34 inch 5.40
" Acorn, Loose Pin. dis 50&10 \$ " Acorn, Loose Pin. dis 50&10 \$ " Jap'd dis 50&10 \$	79, 34 and 35 07 96 to 39 inch
American Ball	% to % by % and 5-16 " 3.30 % and % by % and 5-16 " 4.00
Blind Butts.	% and ½ by ¼ and c-16 4.00 3 to 6 by ¼ to 3-16 3-8 3 to 6 by ¼ to 3-16 3-9 1½ to 2½ by ½ to 3-16 3-50 1½ to 2½ by ½ to 3-16 3-50 1½ to 2½ by 3-10 3-70 3-70 3-70 1 to 1½ by 1½ to 3-16 3-50 3-70 1 to 1½ by No. 11 and No. 12 4-90 4-90 4 and ½ by No. 13 and No. 12 4-90
Blind Butts	17g to 27g by No. 11 and No. 12
Chains, -German Halter and Coil, new list Oct. 22,	\$\frac{1}{2}\$ and \$\frac{1}{2}\$ by No. 11 and No. 12. 4.20 \$\frac{1}{2}\$ and \$\frac{1}{2}\$ by \$\frac{1}{2}\$ to \$3.16. 4.50 \$\frac{1}{2}\$ and \$\frac{1}{2}\$ by No. 11 and No. 12. 4.70
Best Proof Coil Chain—English. Best Proof Coil Chain—English. B	Hoop Iron. 570 54 and 9-16, Nos. 13 to 16. 570 54 and 11-16. 13 to 16. 520
Chisels.—Socket Framing. dis 65&5 % Socket Firmer dis 65&5 % Butcher's \$5.00 to £ gold	76 and 13-16, 13 to 16. 4-70 1 and 14. 13 to 15. 4-30 14 to 2, 13 to 15. 360 14 to 2, 13 to 15. 360
Casters.—Bed	\$\ and ii-16, \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Enterprise	\$\frac{9}{9}\$ and \$\frac{9}{6}\$ by \$No. 11 and \$No. 12
Goodnow Mfg. Co. and Meriden Cuttery Co., Manu- facturers' prices net.	Indicated. Rounds and Squares. 1 to 136
Adjustable Handle dia 15 C	396 to 4
Tinned	94 to 194
Pry Pans. Tinned. \$\frac{1}{2}\text{dos.\$\frac{1}{2}\text{so}}\text{ 4.00 } \frac{4.50}{2.50}\text{ 5.50 } \frac{6.50}{6.50}\text{ 7.50 } \frac{9.00}{6.50}\text{ 10.00}\text{ 10.00}\tex	\$\\ \bar{4}\ \text{ to 1}\\ \bar{4}\ \cdots \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\
Nicholson	\$4 to 14 by 4-16 to 14 inch
Files	Juniata 3c V B over American. Sheet Iron. Common. Charcoal. Juniata.
Crown 44 in. roll. 2.50 dis 10.5	No. 15 to 24
Geneva Fluter	No. 32 to 244.40 6.00 7.00
Hammers,	No. 27
Yerkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide,
Yerkes & Plumb's dis 20 % flatchets. Yerkes & Plumb dis 33 ½ % Hunt dis 20 % in the dis 20 % i	All sheets No. 18 and lighter, over 30 inches wide, not less than 2-10c extra. Tank Iron.
Yerkes & Plumb's dis 20 % flatchets. Yerkes & Plumb dis 33 ½ % Hunt dis 20 % in the dis 20 % i	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-noc extra. 3-16 to ½ in. thick. 3-8e Plow Slabs. 4.0c Wings. 4.30 Coal Screen Iron.
Yerkes & Plumb's dis 20 % flatchets. Yerkes & Plumb dis 33 ½ % Hunt dis 20 % in the dis 20 % i	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-noc extra. 3-16 to ½ in. thick. 3-8e Plow Slabs. 4.0c Wings. 4.30 Coal Screen Iron.
Varkes & Plumb's dis 20 % Matchets dis 30 % Yerkes & Plumb dis 30 % Hunt dis 30 % Hinges dis 40 % Strap and T Mos. 5 6 7 8 9 10 Horse Nalls Mos. 5 6 7 8 9 10 Ausable Pol'ed & P'l'd and 20 24 23 24 23 20 19 18 Globe New list. 26 22 20 19 18 7 Clinton Polished & Pointed 22 20 19 18 Southern all sizes Will 18 26 25 24 23 Polished Pointed 22 20 19 18 7 9 10 10	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-noc extra. 3-16 to ½ in. thick. 3-8e Plow Slabs. 4.0c Wings. 4.30 Coal Screen Iron.
Varkes & Plumb's dis 20 % Matchets dis 30 % Yerkes & Plumb dis 30 % Hunt dis 30 % Hinges dis 40 % Strap and T Mos. 5 6 7 8 9 10 Horse Nalls Mos. 5 6 7 8 9 10 Ausable Pol'ed & P'l'd and 20 24 23 24 23 20 19 18 Globe New list. 26 22 20 19 18 7 Clinton Polished & Pointed 22 20 19 18 Southern all sizes Will 18 26 25 24 23 Polished Pointed 22 20 19 18 7 9 10 10	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to ½ in. thick. 3-16 to ½ in. thick. 4-20 Wings. Coal Screen Iron. 1% by ½ by 5-16. Angle Iron. 1% by ½ by 5-16. Angle Iron. 1% linch. 3-20 3-20 3-20 3-20 3-20 3-20 3-20 3-20 3-30
Yerkes & Plumb's dis 20	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to \{\frac{1}{2}\} in. thick. 1-16 to \{\frac{1}{2}\} in. \frac{1}{2}\} in. \frac{1}{2}\
Yerkes & Plumb's dis 20	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to \{\frac{1}{2}\} in. thick. 1-16 to \{\frac{1}{2}\} in. \frac{1}{2}\} in. \frac{1}{2}\
Yerkes & Plumb's dis 20	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to \(\frac{1}{2} \) in. thick. 3-16 to \(\frac{1}{2} \) in. thick. 4-20 Wings. 4-30 Wings. 4-30 Coal Screen Iron. 13\(\frac{1}{2} \) by \(\frac{1}{2} \) cost \(\frac{1}{2} \) cost \(\frac{1}{2} \) do so \(\frac{1}{2} \) d
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to \(\frac{1}{2} \) in. thick. 3-16 to \(\frac{1}{2} \) in. thick. 4-20 Wings. 4-30 Wings. 4-30 Coal Screen Iron. 13\(\frac{1}{2} \) by \(\frac{1}{2} \) cost \(\frac{1}{2} \) cost \(\frac{1}{2} \) do so \(\frac{1}{2} \) do \(\frac{1}{2} \) do \(\frac{1}{2} \) do \(\frac{1} \) do \(\frac
Verkes & Plumb's dis 20 5	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to \(\frac{1}{2} \) in. thick. 3-16 to \(\frac{1}{2} \) in. thick. 4-20 Wings. 4-30 Coal Screen Iron. 15 by \(\frac{1}{2} \) in \(\frac{1}{2} \) by \(\frac{1}{2} \) in
Verkes & Plumb's dis 20 5	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to \(\frac{1}{10} \), in. thick. 3-16 to \(\frac{1}{10} \), in. thick. 4-20 Wings. 4-30 Coal Screen Iron. 15\(\frac{1}{2} \), 15\(\frac{1}{2} \), 25\(\frac{1}{2} \) 1 by \(\frac{1}{2} \), 15\(\frac{1}{2} \), 25\(\frac{1}{2} \) 1 by \(\frac{1}{2} \), 15\(\frac{1}{2} \), 25\(\frac{1}{2} \) 1 by \(\frac{1}{2} \), 15\(\frac{1}{2} \), 25\(\frac{1}{2} \) 1 by \(\frac{1}{2} \), 15\(\frac{1}{2} \), 25\(\frac{1}{2} \) 1 by \(\frac{1}{2} \), 15\(\frac{1}{2} \), 25\(\frac{1}{2} \) 1 by \(\frac{1}{2} \), 15\(\frac{1}{2} \), 25\(\frac{1}{2} \), 15\(\frac{1}{2} \), 25\(\frac{1}{2} \), 15\(\frac{1}{2} \), 25\(\frac
Verkes & Plumb's dis 20 %	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 3. 4.00 "Wings. 4.00 "Spirit of the state of the st
Verkes & Plumb's dis 20 %	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 3. 4.00 "Wings. 4.00 "Spirit of the state of the st
Yerkes & Plumb's dis 20	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 3. 4.00 "Wings. 4.00 "Spirit of the state of the st
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to \(\frac{1}{2} \) in. thick. 3-16 to \(\frac{1}{2} \) in. thick. 4-20 Wings. 4-30 Wings. 4-30 Wings. 4-30 Coal Screen Iron. 12\(\frac{1}{2} \) 13\(\frac{1} \) 13\(\frac
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to \(\frac{1}{2} \) in. thick. 3-16 to \(\frac{1}{2} \) in. thick. 4-20 Wings. 4-30 Wings. 4-30 Wings. 4-30 Coal Screen Iron. 12\(\frac{1}{2} \) 13\(\frac{1} \) 13\(\frac
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to \(\frac{1}{2} \) in. thick. 3-16 to \(\frac{1}{2} \) in. thick. 4-20 Wings. 4-30 Wings. 4-30 Wings. 4-30 Coal Screen Iron. 12\(\frac{1}{2} \) 13\(\frac{1} \) 13\(\frac
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 1-16 to § in. thick. 1-16 to § in. thick. 1-17 to Wings. 1-18 to § in. thick. 1-19 to § in. thick. 1-10 to § in.
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 1-16 to § in. thick. 1-16 to § in. thick. 1-17 to Wings. 1-18 to § in. thick. 1-19 to § in. thick. 1-10 to § in.
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 1-16 to § in. thick. 1-16 to § in. thick. 1-17 to \$10 to \$1
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to 16 in. thick. 1-16 Wings. 4-10 Wings. 4-20 Wings. 4-30 Coal Screen Iron. 126 by 16 by 16, 150 I by 26 by 5-16. 4-30 I by 16 by 16, 150 I by 26 by 5-16. 4-30 I by 16 by 16, 150 I by 26 by 5-16. 4-30 I by 17 linch, for Plow Handles. 4-30 I by 18, 16 I by 18, 17 I by 18, 18 I by
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 3-400 Wings. 4-50 Wings. 4-50 Wings. 4-50 Wings. 4-50 Ly by § by 5-16. 4-50 Ly by § by § by § by 5-16. 4-50 Ly by § by § by § by 5-16. 4-50 Ly by § by § by § by 5-16. 4-50 Ly by § by § by § by 5-16. 4-50 Ly by § by § by § by § by 5-16. 4-50 Ly by § by § by § by § by 5-16. 4-50 Ly by § by § by § by § by 5-16. 4-50 Ly by § by § by § by § by 5-16. 4-50 Ly by § by § by § by § by 5-16. 4-50 Ly by § by
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 1-16 Wings. 4-10 Wings. 4-10 Wings. 4-10 Wings. 4-10 Wings. 4-10 Coal Screen Iron. 12 by § by 5-16. 4-10 Wings. 4-10 Light \$\circ{1}{2}\$ by \$\circ{1}{2}\$ inch. 1-16 by \$\circ{1}{2}\$ by \$\circ{1}{2}\$ inch. 1-16 by \$\circ{1}{2}\$ and \$\circ{1}{2}\$ inch. 1-16 by \$\circ{1}{2}\$ inch, for Plow Handles. 4-10 light \$\circ{1}{2}\$ inch. 4-10 l
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 1-16 Wings. 4-10 Wings. 4-10 Wings. 4-10 Wings. 4-10 Wings. 4-10 Coal Screen Iron. 12 by § by 5-16. 4-10 Wings. 4-10 Light \$\circ{1}{2}\$ by \$\circ{1}{2}\$ inch. 1-16 by \$\circ{1}{2}\$ by \$\circ{1}{2}\$ inch. 1-16 by \$\circ{1}{2}\$ and \$\circ{1}{2}\$ inch. 1-16 by \$\circ{1}{2}\$ inch, for Plow Handles. 4-10 light \$\circ{1}{2}\$ inch. 4-10 l
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 1-16 Wings. 4-10 Wings. 4-10 Wings. 4-10 Wings. 4-10 Wings. 4-10 Coal Screen Iron. 12 by § by 5-16. 4-10 Wings. 4-10 Light \$\circ{1}{2}\$ by \$\circ{1}{2}\$ inch. 1-16 by \$\circ{1}{2}\$ by \$\circ{1}{2}\$ inch. 1-16 by \$\circ{1}{2}\$ and \$\circ{1}{2}\$ inch. 1-16 by \$\circ{1}{2}\$ inch, for Plow Handles. 4-10 light \$\circ{1}{2}\$ inch. 4-10 l
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to 16 in. thick. 3.50 inches wide,
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to 16 in. thick. 3-50 inches wide, wide, wide wide, w
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 3-8e "Wings. 4-90 "Wings. 4-90 "Wings. 4-90 "Wings. 4-90 "Wings. 4-90 "Wings. 4-90 "You Maho. 4-90 "Y
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to § in. thick. 3-8e "Wings. 4-90 "Wings. 4-90 "Wings. 4-90 "Wings. 4-90 "Wings. 4-90 "Wings. 4-90 "You Maho. 4-90 "Y
Verkes & Plumb's	All sheets No. 18 and lighter, over 30 inches wide, not less than 3-100 extra. 3-16 to 16 in. thick. 3-50 inches wide, wide, wide wide, w

	THE IRON
	P . P 4 . C . S
Silver dis 40, 42, 5 dis, Boardman's dis 50, 108, 5 Darker's dis 508, 5 Parker's dis 508, 5 dis 508, 5 dis 20, 5 dis 20, 5	Best Refined Cast St Square, Flat, Octagon and % to 2 in
Torrey. \$\tilde{\text{P}} \text{ for \$\tilde{\text{g}}\$ on \$\text{ so } \text{ for \$\tilde{\text{g}}\$ on \$\text{ for \$\text{g}\$ on \$\text{g}\$ on \$\text{ for \$\text{g}\$ on \$\text{g}\$ on \$\text{ for \$\text{g}\$ on \$\text{ for \$\text{g}\$ on \$\text{g}	Machinery Steel.
elish.—Gem # gross, \$4.50, dis 5 % 6.00, dis 10 %	Ordinary sizes, % to 2 in., Round, Squ Octagon. 516 and 2½ to 3 in 8c 3 in and 3½ to 4 in 9c Cast Spring Sizes. 1 to 4½ it 0½ in 5c 7-32 and 4½ to 5 in 5c Bessemer, 1c, per lb. less. Cut to special lengths, %c. extra.
Nails—4-8 and larger, 6c; 314-8, 7c % 5 net Pointed Tacks	Solid Cast Steel Plow, 4 to 16 by 3-16 to % Soft Steel Center Plow, 4 to 16 by 3-16 to % Soft Steel Center Plow, 4 to 16x3-16 to % Soft Steel Center Plow.
e Oneida—Newhouse	Solid Cast Steel Plow, 4 to 16 by 3-16 to "Iron Center Plow," 4 to 16 x3-16 to 76 soft Steel Center Plow, "4 to 16x3-16 to 76 soft Steel Center Plow, 4 to 16x3-16 to 76
or Ann'd, No. o to 18	Hoe, C. B. Sheet Cast Steels. 1st qual. 2d qual. 3d qua
aed, No. 7 to 18. Market List, dis 37% 5	Beveled Hoe and Shovel Steel
No. 254	Rells and Castings Furnace, Floor and Straightening Pla Housings and Castings not otherwise Guide Plates Spindles and coupling boxes. Sand Rolls and Plainons, large size. "small size. Pipe Mill Castings under 50 lbs. Rolling Mill Castings under 50 lbs. Spur and Bevel Wheels, large. "over 20 inches "over 20 inches Engine Castings, light. "Cattled Rolls.
Merchant Iron. Note or acceptance at 60 days, with current tohange on New York, or a discount of 2 per cash, if remitted within 10 days from date	Pulleys up to 30 inches. " over 30 inches. Engine Castings, light.
6. Flat Bar. 3.00 7	heavy Chilled Rolls. 6 to 7 in. diam 7 to 20 in. long 8 to 15 in 8 to 40 in 15 to 24 in 11 5 to 77 in 12 24 to 31 in 72 to 108 in 11
1	Juniata Horse Shees. Mule " Roadster" pattern
Heavy Bands 54c 10 14 16 16 16 15 16 16 16 15 16 16 15 16 16 15 16 15 16 15 16 15 16 15 16 15 16 15 16 16 16 17 16 18 18 18 18 18 18 18	Steel Tee Calks. Thistlewood & Co.'s Self-Sharpening Shoes. Thistlewood & Co.'s Self-Sharpening Sa Shoes. Toe Calks.
19 y 4 and 4-10 4.00 19 js to 3-16. 3-36 by No. 11 and No. 12 3-50 y So 10 3-16. 3-50 by No. 11 and No. 12 3-70 by No. 11 and No. 12 4.00 by No. 11 and No. 12 4.70 Hoop from.	
by No. 11 and No. 12. 4.20 by \$6 to 3.16. 4.50 by No. 11 and No. 12. 4.70 Hoop Iron. 5.70	White Lead in Oil, Assorted Kegs (all """ 19,8 Tin Pails, 100; "" 19,8 Tin Pai
Hoop from 16, Nos. 15 to 16. 5.70 -16, 11 15 to 16. 5.80 -16, 11 15 to 16. 5.80 -16, 11 15 to 16. 5.80 -16, 11 15 to 15. 5.80 -16, 11 15 to 15. 3.90 -16, 11 17 to 20. 5.50 -16, 11 17 to 20. 5.50 -16, 11 15 to 10. 4.60 -16, 11 15 to 10. 4.60 -16, 11 15 to 18. 4.10 -17, 18 15 to 18. 4.10 -18, 18 to 15. 4.00 -18, 18 to 15. 4.00 -19, 18 to 15. 4.00 -10, 18 to 15. -10, 18 to 15. 4.00 -10, 18 to 15. -10, 18 to 15. -10, 18 to 15. -10, 18 to 15. -10, 18	Terms: Note at sixty days, or if pairom date of invoice, a discount of 1) be allowed, but not otherwise. Window Glass. Fer Box of 50 Feet.—Discount to,
16, 17 to 20	Single Strength. AA.
Rounds and Squares. 3.00 \$4 0 9-16 3.30 \$4 0 7-16 3.30 \$4 0 7-16 3.40 \$3.50 \$4.00 \$16 3.50 \$4.00 \$16 3.50 \$4.5	Sing. A.A. Same A.A. Same Same A.A. Same A.A. Same A.A. Same Same A.A. Same A.A. Same A.A. Same A.A. Same Same A.A. Same A
450 46 4.00 4.0	30 X 52 to 30 X 54
Ocal From. 38c 38c 34c	11 X 14 E0 16 X 24
y c-16 to ¼ inch	20 X 46 to 30 X 50. 44.00 30 X 52 to 30 X 54. 35.75 30 X 55 to 34 X 56. 27.75 34 X 58 to 40 X 50. 35.25 36 X 50 to 40 X 60. 33.25
4	An additional 10 per cent. will be glass more than 40 inches wide. All inches in length and not making more inches, will be charged in the 84 united
n. thick	HYATT'S PATENT SPRI
y 5-163-50 1 by 5 by 5-164.00	
and 4 inch	
T Rail	Patented Jan. 20th, 187 For Fastening Cabinet Ware, Closet and
airs and Splice Joints for 12, 16 and 20 lb. ach; 28 and 40 lb. Hall, 500 each. ad 45 Splices for 20 and 26 lb. Rail. 4.50 45 " " 12 and 16 lb. Rail. 4.50 45 " " 8 lb. Rail. 4.50 4 Rails.—Punched and Countersunk. 45 to 46 inch. 3.50 ad 7-16 inch. 3.70 16 and 16 inch. 4.00	We call the sttention of the trade to Brass and Iron Bolta, as being the bee in the market. Sizes, two inches an plain and neck bolts. Two screws and bed-plate to the wood; no other the bed-plates are made of brass, fr
8d 7-16 lnch 3-70 -16 and 1/2 inch 4.00 -10 and 1/2 inch 4.00 -10 and 1/2 inch 4.00 -10 and 1/2 inch 4.00 -10 and 1/2 inch 4.00	the bed-plates are made of brass, fr spring is cut and raised, upon which with neasy, elastic movement, sav screws and producing a strong, i cheap Bolt. Price list furnished on
\$4.70 4.70	cheap Bon. Price ast turnshed on BRASS COODS MFC 43 Chambers 81 We also manufacture all kinds of Goods, Drop Bases, Thimbles and Knobs, Plate Escutcheous, Brass Label
Wood's Futent Flanished Sheet. 3-90 Wood's Futent Flanished Sheet. (A) 110 3d quality (B) 9,60 Galvanised Iron-American. 10. 120 No. 27 150 160 130 No. 38 160 136 140 No. 29 186 180 18	Goods, Drop Bases, Thimbles and I Knobs, Plate Escutcheons, Brass Labels Business Cards, &c. THE UNIVERS
150. 150. 150. 150. 150. 150. 150. 150.	LIFTING JA
Carnegie Bros. & Co.'s list.	teams, fire er cars, &c. Fo patent rubb will not ms painted carri
ught Iron Beams, 3 to 10/4 in. x30 ft. \$\vec{v}\$ is 4 c \$\vec{v}\$ is 1 in. by 25 ft. \$\vec{v}\$ 4 c \$\vec{v}\$ is 1 in. by 25 ft. \$\vec{v}\$ 4 c \$\vec{v}\$ is 1 in. by 25 ft. \$\vec{v}\$ 4 c \$\vec{v}\$ ars, 164 to 161. by 30 ft. \$\vec{v}\$ 4 in. by 30	DINSMORE 235 Wash BOS
Tee Iron. to 5 in.x3 in # B 4 c dnyle Iron. d, 1x1 to 19k1 19k1 10 # B 5.0c 2x2 to 4x4. # 56c ddod, 2x1% to 5x4. # 36c	Silver med Massachusett Charitable A

10, 1085 % 18 5085 %	\$\frac{5}{4} to 2 in
is 50&5 % is 50&5 % 15 @ 20 % dis 20 %	% to 2 in
\$2.50 net	mili, Fick, Drill-Ordinary sixes120
dis 3335%	Machinery Steel. Ordinary sizes, % to 2 in., Round, Square, Flat and Octagon
3.50 dis 2.50 to \$ 2.00 to \$	5-16 and 21/4 to 3 in 8c 3-16 and 51/4 to 6 in 12c
o dis s \$	Cast Spring Steel. 1 to 4x 4 to 16 in 6c % to 136x5-32 to 3-16 in 7c
dis 10 %	1 to 4x½ to ½ in 6c 3½ to 1½xx-32 to 3-16 in. 8c 7-32 and 4½ to 5 in 10 Beasemer, 10, per lb. less. Same Classification. Cut to special lengths, ½c. extra.
dis 45 % net lis 40&5 %	
.dis 30 %	"Iron Center Plow," 4 to 16x3-16 to 36 in
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0 1016	Hoe, C. B. 65gc Sheet Cast Steels.
@ 57% % @ 62% % 40 @ 42 % .dis 55 %	ist anal. ed anal. ed anal. Bessemer
dis 55 %	10 to 20 gauge 13C. 11C. 9C. 8c. 21 to 20 gauge, 1C. extra for each additional gauge. Bevaled thos and Shovel Steel
63.00 net	Rolls and Castings.
60.00 net 63.00 net 60.00 net	Furnace, Floor and Straightening Plates3 c Housings and Castings not otherwise specified34c Guide Plates38c
69.00 net	Guide Plates
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	White Lead in Oil in lots of less than 500 lbs., 150 ad-
5.70 5.20	Offings and the state of the state of the state of the white Lead. less than so lbs., \(\frac{1}{2} \text{c} \) over so lbs., \(\frac{1}{2} \text{c} \) white Lead in oil in lots of less than so lbs., \(\frac{1}{2} \text{c} \) additional. Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 15 per cent. will
5.30 4.70 4.30	Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 156 per cent. will be allowed, but not otherwise. Window Glass.
5.36 4.70 4.30 3 90 5.50	Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 134 per cent. will be allowed, but not otherwise. Window Glass. Per Box of 55 Feet.—Discount to, 10 and 5 %.
5.20 4.70 4.30 3 90 6.00	Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 135 per cent. will be allowed, but not otherwise. Window Glass. Fer Box of 56 Feet.—Discount 60, 10 and 5 f Single Strength. Size. AA. A. B. C.
5ae 4-7c 4-3c 3 ge 6.oe 5-5c 5-oc 4.6c	Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 135 per cent. will be allowed, but not otherwise. Window Glass. Fer Box of 56 Feet.—Discount 60, 10 and 5 f Single Strength. Size. AA. A. B. C.
5.ae 4.3e 3.9e 5.6e 5.6e 4.6e 4.6e 4.0e m above	Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 135 per cent. will be allowed, but not otherwise. Window Glass. Fer Box of 56 Feet.—Discount 60, 10 and 5 f Single Strength. Size. AA. A. B. C.
5.ac 4.7c 4.3c 3.9c 5.0c 5.0c 4.0c 4.0c 4.0c 4.0c 4.0c 4.0c 4.0c 4.0c	Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 135 per cent. will be allowed, but not otherwise. Window Glass. Fer Box of 56 Feet.—Discount 60, 10 and 5 f Single Strength. Size. AA. A. B. C.
5.ae 4.3e 4.3e 3.9e 6.oe 5.oe 4.6e 4.oe m above	Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 135 per cent. will be allowed, but not otherwise. Window Glass. Fer Box of 56 Feet.—Discount 60, 10 and 5 f Single Strength. Size. AA. A. B. C.
	Torma: Note at sixty days, or if paid within 15 days from date of involce, a discount of 154 per cent. will be allowed, but not otherwise. Window Glass. Per Box of 55 Petr.—Discount to, 10 and 5 %. Single Strength. Sise. AA. A. B. C. 6 x 8 to 10 x 15, \$8,x \$7,50 \$7,00 \$8,00 \$7.55 \$1 \$1,00 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1
-5.5e -5.7e -5.9e	Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 136 per cent. will be allowed, but not otherwise. Window Glass. Fer Box of 55 Feet.—Discount to, 10 and 5 f Single Strength. Single S
-5.3c -5.7c -5.5c -5.5c -5.5c -5.5c -6.1c	Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 136 per cent. will be allowed, but not otherwise. Window Glass. Fer Box of 55 Feet.—Discount to, 10 and 5 f Single Strength. Single S
-5.5e -5.7e -5.9e	Terms: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 136 per cent. will be allowed, but not otherwise. Window Glass. Fer Box of 55 Feet.—Discount to, 10 and 5 f Single Strength. Single S
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-5.3e -4.7e -4.3e -5.5e -5.5e -4.6e -4.6e -3.4e -3.4e -3.4e -3.6e -3.4e -3.6e -3.4e -3.6e	Note at sixty days, or if paid within 15 days from date of invoice, a discount of 136 per cent. will be allowed, but not otherwise.
-5.3e -4.7e -4.3e -5.5e -5.5e -5.6e -4.6e -4.6e -3.3e -3.4e -3.6e -3.4e -4.6e	Note at sixty days, or if paid within 15 days from date of invoice, a discount of 136 per cent. will be allowed, but not otherwise.
-5. ize -4.70 -4.30 -3.50 -5.5	Torma: Note at sixty days, or if paid within 15 days from date of invoice, a discount of 114 per cent. will be allowed, but not otherwise. Windew Glass. Fer Box of 55 Feet.—Discount to, 10 and 5 f Single Strength. Single Strength. Single Strength. 6 x 8 to 10 x 15
-5.3e -4.7e -4.3e -5.5e -5.5e -5.5e -5.6e -5.e -5.e -5.e -5.e -5.e -5.e -5.e -5.	Note at sixty days, or if paid within 1s days from date of involce, a discount of 1½ per cent. will be allowed, but not otherwise. Window Glass. Feet - Discount to, 10 and 5 %.
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-5. ac 4-9c 5. ac 4-9c 6. ac 6.	Note at sixty days, or if paid within 1s days from date of involce, a discount of 1½ per cent. will be allowed, but not otherwise. Window Glass. Feet - Discount to, 10 and 5 %.
-5.3e -4.7e -4.3e -5.5e -5.5e -4.6e -4.1e -3.3e -3.4e -3.4e -3.5e -3.4e -3.6e -3.4e -3.6e -3.4e -3.6e	Note at sixty days, or if paid within 1s days from date of involce, a discount of 1½ per cent. will be allowed, but not otherwise. Window Glass. Feet - Discount to, 10 and 5 %.
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-5. ac	Note at sixty days, or if paid within 15 days from date of involce, a discount of 156 per cent. will be allowed, but not otherwise. Window Glass. Feet - Discount to, 10 and 5 %.
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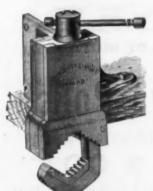
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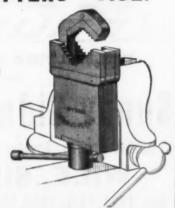
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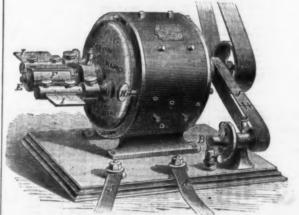


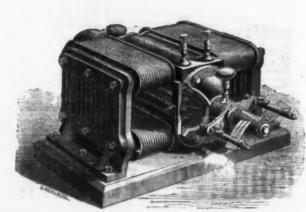
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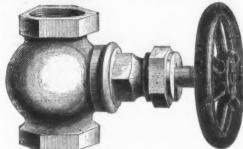
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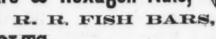
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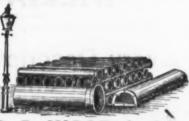
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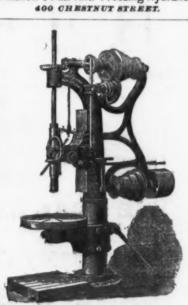
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Ax Handles.— Oak Extra, 31 in., No. A	Sash Weights.—Patent Eye. > % 2 c Saws.—Hand Saws, Disston's
** 31 IB., No. B	Wheeler & Clemson
AX Handless— Oak Extra 31 In., No. A.	Disston's, Common 4 P foot 35c
Barn Door Rail.— Cast Angle (for Anti-Friction Hangers)per ft. 20	Boynton's Lightning " foot 45c
" Hair-Round per ft, %, 3\dc; \%, 5\dc Wrought " per ft, \%, 4c; \%, 5c; \%, 5c;	W. M. & Co.'s, Circular Saws
Bird Cages. Japanned M. B. & D., reduced list, 1870dis 2244 \$	W. M. & C. dis 70 % Welch & Griffith, Extra
Blind Fasts.—Lock Fasts & C sets \$5.00	Scales.—Fairbanks
Balances,—Chattllon's Barn Boor Rail, Cast Angle (for Anti-Friction Hangers) per ft. 3c "Haif-Round	Wheeler & Clemson dis 19 %
Shedd's. FC sets 7.00 Blind Hinges.—Mall. Hook, 3 holes. FC sets 6.50 Brad Awl Handles.— Phenix Adjustable. Fd dos \$2.00	Brass
Bolts.—Norway Iron Carriage	American Fine-Head fron
Borax.—Refined	Shaves.—Kimbal's
Snell Augers	Shaves.—Kimball's # inch 7½0 Watrous. dis 15 % Shears.—American Shear Co., new list dis 7 % Shot.—Tatham's. # B 7½0 Shovel.s.—O. Ames, new list dis 20 % O. Ames, other brands, new list dis 20 % M. B. & D. dis 20 % Acord. Birmingham Pattern dis 4 % Snow Shavels—Malleable tips № doz \$c.o. Skattes.—Unlon dis 25 % Acme. dis 20 %
Spofford's dis soit 5 Backus' dis 50 & 10 %	O. Ames, other brands, new list
Bracket Saws.—Holly Scroll Saweach \$2.2 Demas Lathe and Scroll Saw	Oxford, Birmingham Pattern
Steel Frame, with patterns. @ doz 6.50 Lester	Acme dis 25 % Stock and Dies.—King's dis 10% 5 €
New Rogers, all froneach, \$2.25 Bracket Saw Blades. Griffith's patent	Acme dis 24 S
Brackets.—M. H. & B. Flower Pot dis 40 2 10 2 Bronzed Sneil, M. B. & D. list	Swedes Iron 50 % Gimp and Lace 45 % Conner Tacks 45 %
Brouze Hardware Norwalk Lock Co. New list, dis 45&10 %	Copper Tacks. 40 %
" Loose "	Oneida, Imitation, H. & N
Boston Finish dis 55&10 %	Tree Scrapers.—No. I
Bind Hinges.—Mail. Hook, 3 holes. © Osets 5,00 Bind Hinges.—Mail. Hook, 3 holes. © Osets 6,50 Phoenix Adjustable. © dos \$2.00 Boils.—Norway fron Carriage. dis 6 & 10 \$5 Common Gorax.—Refined. dis 90 \$2.00 Borax.—Refined. dis 90 \$2.00 Borax.—Refined. dis 90 \$2.00 Borax.—Refined. dis 90 \$2.00 Borax.—Refined. dis 90 \$2.00 Snell Augers. © seel Augers. © seel 1,50 Braces.—Barber's. dis 40 \$2 \$5 Spofford's. dis 40 \$2 \$5 Spo	Gimp and Lace
Wrought Brass	Vises.—Simpson a Adjustable
"Universal". 12.00 No. 1	In 20 feet boxes; No. 1, 16 in. wide, # yard, 10c.; No. 2, 96 in., 140. No. 3, 56 in., 20c.; No. 1 in.
No. 2. 3.00 No. 3	Valentine's Felt Moulding
No. 4	Babcock's No. 3
Cards Watson's make Horse and Curry . dis 25 & 10 %	Wire Goods, Gate Hooks and Eyes, &c., new

or can w minutes.	A least city and a second contract cont
h's patent @ gross 750	Swedes Tinned
PERSON N. M. M. Flower Pot discourse	Swedes Iron
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district M. D. d. D. Historica Committee of the Committee	Gimp and Lace
Hardware Norwalk Lock Co.	
Now list dis solves	All balances on list. Traps.—Onoida, Genuine
-Union Fast Jointdis 40 TO \$	Phones - Opelde Geneter
- Union Fast Joint	Traps.—Oneida, Genuine
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ax," No. 1 p doz 818.00	P. L. & Co., Solid Blacksmiths' new list Weather Strips.—Packer's
No. 114	Wanther Mitring Deckants
No. 114 12.00	W Cather Strips Phoner a
ersal"dis 25 %	In so feet boxes: No. r. le in wide a vard .
No. 1each, \$2.00	a de in tra . No. 1, white, w yard, b
2.00 E	78 cm, 176. St. 3, 24 III., 20C.; NO. 4, I
No. 2 " 3.00	In 20 feet boxes; No. 1, ½ in. wide, # yard, n 2, ½ in., 142. No. 3, ¾ in., 20c.; No. 4, I Valentine's Felt Moulding.
No. 3 6.00	
NO. 3	Window Springs
200	The state of the s
No. 5 " 6.50	Babcock's No. 3 & gro
dgesU. S. Cartridge Codis 60&10 %	4
-Watson's makeHorse and Curry .dis 25 & 10 %	
" Cotton	list and state state and byes, acc.
Cottondis 20&30 %	Wrenches.—A. G. Coe's. dis
Wool,dis 20&10 %	Wrenches, -A. G. Coo's
- Hed and Table dia 25#10 %	Girard Mfg. Co
	Girard Agl
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079, 10, 4, twisted Pair 003	Wringers,-Universal, No. 2 b de
7. 12. 2, " 1/ pair 8ce	Universal, No. 256
1 6/9, 10, 4, twisted.	Novelty, No. 10
# b 9 C	Universal, No. 2\(\frac{1}{6}\). \(\frac{1}{9}\) de Novelty, No. 10. \(\frac{1}{9}\) de No. 2. \(\frac{1}{9}\) de de No. 2.
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- Hart, Diven & Mead, Framingdis of %	" Iron Erame No. 216 P de
	Peerless # dos. No. 216, 00.00; No. 2, 62.00; No.
Shank. Framingdis 30 %	Unique, No. 1 # de
Line.	Wine
	Zinc
nized Wire. 100 feet each W doz \$4.00	Withington, Cooley & Co.—Hoes, Rakes, Forks
ods"Dover."-Galvanizedlist net	dis 40 %. Special rate for Export.
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Rivetsdis 30 %	St. Louis Metal Market.
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Rivetsdis 30 %	St Louis Wotel Manket
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eManila, usual trade dis 10 1 13160	Tin Plate, DX. 126x12 B. Char
20 d V Do of	Tin Plate. DX, 1216x17, B. Char.
es. dis as s	1C, 10x14, Best Char #9.00 DXX, 1256X17. "
3 ft. No. 6 Wire, with toggie # dog \$3.00	IX, 10X14. " 11.00 DXXX 124 X12 "
3 ft. " With snap W dog 3 for	1C. 12X12 " OCO DXXXX INGAIN
3 ft. with snap W dox 3.80	1C, 12X12, 9.00 DXXXX,123qX17,
350 ft. " With toggle dog a.go	IX, 12X12, 11.00 IC, 20X28,
350 ft. " With snap Bi dog Ato	10x 14, 11,00 DXXX, 1256x17, 11, 12x12, 11,00 DXXXX, 1256x17, 11, 12x12, 11,00 IC, 20x28, 11,00 IX, 20x28, 11,00 IX 20x2
Aft. No. 4 " with toggle 22 dog 150	IC. 14X20, 9.CO IX, 20X28, IX, 14X20, 11.00 IXX, 20X28,
40 11 11 models aware C GOS 4-50	IX, 14x20, 11.00 IXX, 20x28, IXX, 14x20, 13.00 IXXX, 20x28,
3 ft. with snap. \$\tilde{g}\$ dos \$56\$ \$56 ft. with toggle. \$\tilde{g}\$ dos \$3.50\$ \$35 ft. with snap. \$\tilde{g}\$ dos \$4.00\$ \$35 ft. with snap. \$\tilde{g}\$ dos \$4.00\$ \$4 ft. No. 4 with toggle. \$\tilde{g}\$ dos \$4.00\$ \$4 ft. with snap. \$\tilde{g}\$ dos \$4.00\$ \$4 ft. with snap. \$\tilde{g}\$ dos \$5.50\$ \$4 ft. \$3 with toggle. \$\tilde{g}\$ dos \$5.50\$ \$4 ft. \$3 with snap. \$\tilde{g}\$ dos \$5.50\$	IXXX, 14X20, " 15.00 IC. 14X20, Best Boof
456 It. 3 With toggle If dog 6.38	
456 ft. " With snap h dog the	IXXXX, 14x30, B.Char 17.00 IX, 14x30,
mrs.Cast Steel # h Sc	IC. 12X24. " 0.25 IC 20X20 **
teel Pointed	IX, 12X24, " 11.25 IX, 20X28 "
teel Pointed # B 6 c	IC, 14X14, " 15.00 IC, 10X14, Best Coke
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re Handledis 3314 \$	1 14 14 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15
Culuda	DC, 1256X17, " 9.00 Pr box 225 ah's Safe Tit
(nivesdis 20 %	
Solster, Oval Handledis 25 %	SL U. D. Ref'd Ju
dis sola C	Sheet Iron. Com'n. Sm'th. Sm'th. S
Common Round Handle, "Woods"dis 3313 %	No. 14 to 16 4.600 5.400 7.400
Common Dound Handle (1 Woods 2)	No. 18 to 20 4.800 5.500 7.400
Common Months Mandie, Woods dis 25%	
Ven, Vendin	
rs,Cook'sdis 25 %	No. 26 4.900 5.702 7.700
llaradis 20 \$	No. 27 5,000 5.B.C 7,000
wzzlesAutomaticdis 15 %	Genuine Russia Iron.
national Transports Book	Perfeut—No. 9, 10, 11, 12
pringsTorrey's Rod # doz \$1.75	No r Contract No a second
011dis 10 \$	No. 1 Stained—No. 9, 10, 11, 12
and the state of t	Tare 23 lbs. to bule. For less than Hale, add Lo.
PR W dog wa ar	Patent Planished Iron.
78. # doz \$2.25 tops.—" Thurston's". dis 50 % F. Anobs.—" Thurston's" dis 50 %	No. 24 to 27. A quality
topic Andrewolf is	No. 24 to 27, B "
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straight Shankdis 20 %	Galvanized Sheet Iron.
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Э D бе	Bancs, Large Pigs26c Eng. Ref'd, Large Pig Eng. Ref'd, Small
ied Ware.	banca, Large Cips 200 Eng. Ref'd, Small
rd Mfg. Co. Kettlesdis 40&10 \$	Stratts, Large Pigg 25c Har
Sauce Pane	Polder.
Sauce Pansdis 20 %	R. S. & Co.'s Extra Half cases, no charge
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Madden & Cockaynedis 25 %	
an File Codis 30 %	R. S. & Co.'s Extra Half No. 1, in Bars
dis as &	and Haif, in 100 h Speiter Solder

	Water Blacker Water Water	R. S. & Co.'s Extra Half cases, no charge for
	Felloe Plates Wrought	
	Files.—Madden & Cockaynedis 25 %	I B. S. & CO. S EXTER HAIT NO. 1 In Bara
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	Knox, with 6 inch rolls Ø dos \$48.00	Antimony
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	Geneva	Nickel
	Rochester	trucibles, -Dixon's
	"Princess " # dos 24.00	Babbit Metal.
	Forks, W. C. & Co., Manure,	No. I
		No. 2 " 140 No. 4
	Genuine German, No. 125, 1-32 to 8-32, per dos \$1.00	Copper.
	Pierce'sper doz 750	Brasier's, 30x60, 14 to 100 B, Sheets
	Glass Cutters.	
	Combination Class Cutter and Knife Sharp-	" 30x50, 8 and 0 m, "
	ener	" 30x60, 6 and 7 B. "
	Grub HoesK. P. & Co.'s No. 2 dos 8.00	30x50, 8 and 9 b, " 30x50, 6 and 7 b, " Tinned, 14x48, 14 and 16 oz
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	Hangers & Rollers,-Anti-Frictiondis sokto \$	Gutter Copper, 20 and 24x72, 10, 11 & 12 B, Sheets
	Acme Rollersdis 45 %	14 m. Sheets
	Climaxdis 45 \$	
	Novelty	Bar Copper, Square and Round, 16 to 116 inch
	Common	" % inch.
	Hand Screws	Bar Copper, Square and Round, 14 to 114 inch
	Underhill	
	Hay KnivesLightning F dos \$18.00 net	MECCHINE DOECOMA.
- 1	Hinges Strap and T (new list)dis 45&10 \$	Soldering Coppers
- 1	Providence Plate # 10 50	Brass.
- 1	Wrought Screw Hook 19 10 40	Roll, No. 20 to 28, 12 in. in width
- 1	HoesW C. & Co.'s	30, 12 in. in width
	Hooks and Staples, -Brewers' dis 40 5	33, 16 in. " 34, 16 in. " 34, 16 in. " 30, 16 in. " Platers, No. 40, 6 in. "
П	Horse Nails. No. 0 7 8 9	34, 10 10.
- 1	National Finished23 .21 .20 .10dis 25 %	Distance No. or 6 to 11
1	Putnam Pointed25 .33 .22 .3110 %	Finters, No. 40, 0 In.
- }	Horse Nails, -Bridgewater dia 25 4	Discount, per cent.
- 3	No. 6, 23; No. 7, 21, No. 8, 20; No. 9, 10.	Brass and Copper Wire. Brass. Copper. Brass. Copp
- 1	No. 6, 23; No. 7, 21, No. 8, 20; No. 9, 10. Knobs.—"Norwalk." New list	
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	Railroad, Oil, No. 43 don 8.00	Discount to per cent.
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	Triangular dos 4.00	Plair to a fuch sac to a fuch
-1	Hurricane,dis 20 %	% inch 38c 4 "
	Lend.—Sheet # 10 7540	% inch
	Pipe @ m7 c	INTERNATION IN COLUMN STORES STORES STORES
	LocksNorwalk Genuine Bronze Goodsdis 40 %	all sizes over 13 inches
	Eagle Cabinetdis 25 %	Shoot Time footh could

Brass, Copper. Brass.	Coppe
NO. 0 to 20 280 380 NO. 24 350	A
NO. 21310 410 NO. 25	4)
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1 NO. 23	5
Brass Spring Wire, 2c or h advance	3.
Discount to per cent	
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Plair 16 to 3 inch	
% inch	**************************************
Copper Rivets and Burs	dita en
Brans Kettles, 8 to 13 Inches	uin 40
" all sizes over 13 inches	31
Sheet Zine,-600 lb, cask	41 BL

	Brass Tubing.
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	Plair 16 to 3 inch 38c 5-16 inch
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	" all sizes over 13 inches "
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1	Sheet Zine600 lb. cask " 81
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	WireIron, Bright Marketdis 46
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1	Iron, Coppered Marketdis 40
ı	Fence, Nos. 8 and o 2 D 45
. 1	2 45
П	Trellis. Nos. 10 and 11, 1 10 5 c; No. 12 " ()
	Hay Baling, No. 9
	Hay Baling Chargoal, No. to and tr
	" No. 12 " 6
1	Broom, Tinned, Nos. 18 to 22
1	9
1	Fence Staples F keg, she; per lb, st

NO. 12	2.
Broom, Tinned, Nos. 18 to 22	0
Bonney Miles I and the second	9.
Fence Staples F keg, 54c; per lb	. 5%
Iron Kiveis, Black, Dapered	4 20
Tinned, papereddi	10. 225
In bulk 3-16 % 5.16 % in d	linz
U.100 8.400 8 too 0 too 10	100
Tacks New Hardware list	-
A MC CAME AND ADDRESS OF SERVICE SERVI	8.40
Sad Irons P h	. 4
Knameled B. cuites, -Standard Mre Co 40	
Enameled Sauce PansStandard Mfg.Co.di	10.55
Enamered Sauce Pans, Standard Mrg. Co.d.	8.40
Enameted Bollers. Standard Mfg. Co di	60 400
IFFIDDING PARS, SERROOF I PARS	
Fluters. Geneva per dos,	1.9
THE PARTY OF THE P	63.2.
Shepard	13.
Monroe	11
Stove Ballah Wasses	2.2

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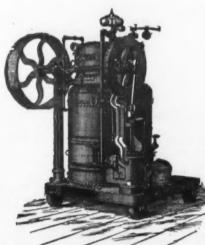
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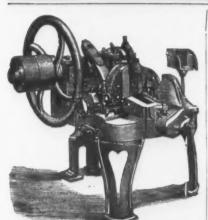
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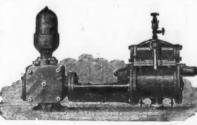
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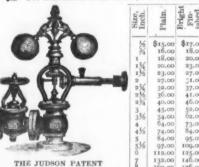
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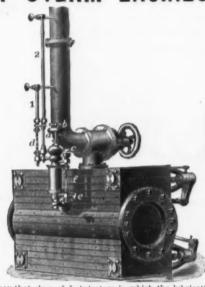
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